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Montana — September 1981

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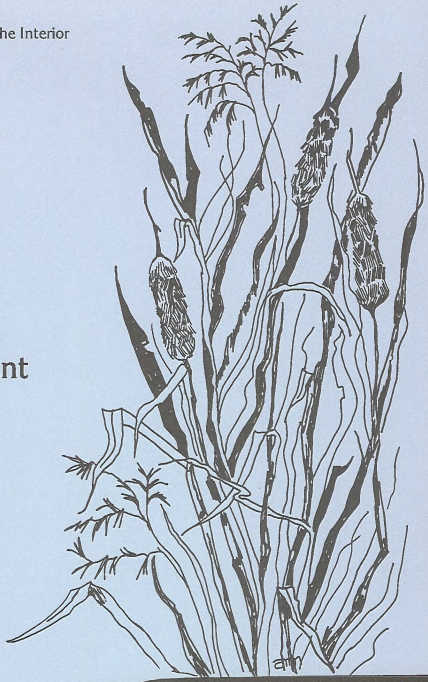
FINAL
Environmental Impact Statement



Prairie Potholes EIS
Vegetation Allocation

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As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

IN REPLY REFER TO:

United States Department of the Interior
BUREAU OF LAND MANAGEMENT
222 North 32nd Street
P.O. Box 30157
Billings, Montana 59107

September 23, 1981

Dear Reader:

The Prairie Potholes Final Environmental Impact Statement is to be used in conjunction with the draft environmental impact statement issued March 23, 1981. That document describes a proposed grazing management program for approximately 1.75 million acres of public lands administered by the Bureau of Land Management in its Havre, Phillips and Valley Resource Areas and analyzes five alternatives to the proposed action.

Corrections and revisions made to the draft are shown in this final statement. Comments on the draft that were made at public hearings and by letter are also included, along with the BLM's responses to those comments. Because the changes suggested through the public review process did not require a major rewrite of the draft, the draft statement and its accompanying map supplement are incorporated into this final environmental impact statement by reference, resulting in substantial cost saving. A limited number of copies of the draft and the map supplement are available at the Bureau of Land Management, Lewistown District Office, Airport Road, Lewistown, Montana 59457.

This final environmental impact statement is not the decision document. The decision on the action to be taken will be based on the analysis contained in this statement, the BLM's personnel and budget constraints, public concerns and comments and other multiple use resource objectives or programs applicable to the area. No action can be taken until at least 30 days have passed after the final statement is filed with the Environmental Protection Agency and distributed to the public. A Rangeland Program Summary will be prepared as soon as a decision is reached. This document will outline the management direction for the Prairie Potholes EIS area. More specific decisions will subsequently be developed on an allotment-by-allotment basis.

We would like to thank the individuals and organizations whose comments and suggestions have helped us to prepare a document that will lead to more effective management of public lands. Their interest is appreciated.

Sincerely yours,

Michael J. Penfold

Michael J. Penfold
State Director

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DEPARTMENT OF THE INTERIOR
ENVIRONMENTAL IMPACT STATEMENT

VEGETATION ALLOCATION IN THE PRAIRIE POTHOLES AREA OF MONTANA

FINAL

to be used with the Draft

Prepared By

BUREAU OF LAND MANAGEMENT
DEPARTMENT OF THE INTERIOR

Michael J. Penfold

STATE DIRECTOR
MONTANA STATE OFFICE

September 1981

UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

PRAIRIE POTHOLES VEGETATION ALLOCATION

FINAL ENVIRONMENTAL IMPACT STATEMENT

BLAINE, CHOUTEAU, DANIELS, HILL, LIBERTY, PHILLIPS, ROOSEVELT, SHERIDAN, VALLEY AND TOOLE COUNTIES, AND PART OF GLACIER COUNTY, MONTANA

Incorporated into the Final Environmental Impact Statement by reference, the Draft Environmental Impact Statement (EIS) discussed proposed vegetation allocations for nearly 1.75 million acres of public lands administered by the Bureau of Land Management in the Lewistown District. Six alternative courses of action, including a Preferred Alternative, were studied in the EIS along with the environmental consequences of each alternative for both the period of implementation (1981-1988) and for the 22 years following implementation (the long term). From the six alternatives, final vegetation allocations and a course of action will be decided.

Summaries of the alternatives in the EIS are as follows:

Alternative A: "Enhanced Combined Vegetation Uses"—This alternative would seek a balance of vegetation allocations among livestock, wildlife and non-consumptive uses. Grazing and land treatments would be relatively intense which would lead to greater vegetation allocations to all three uses in the long term because of the significant improvement in ecological range condition. Wildlife habitat, particularly in riparian zones, would improve. Ranch income would increase moderately as more vegetation became available to livestock.

Alternative B: "Continuation of Present Management"—This is BLM's Preferred Alternative. It would also seek a balance of vegetation allocations among livestock, wildlife and non-consumptive uses but would entail less intensive grazing and land treatments and fewer range developments than Alternative A. All three uses would still receive greater vegetation allocations in the long term due to a moderate improvement in ecological range condition. Ranch income would rise in this alternative but neither as fast or as substantially as in Alternative A.

Alternative C: "Enhanced Livestock Forage"—Alternative C would initially allow a greater vegetation allocation to livestock and a highly significant increase of vegetation allocation to livestock over the long term. Wildlife would also receive a substantial increase but some important habitat areas (particularly riparian zones) would have less improvement than in Alternatives A, B or D. Ranch income would increase significantly and this alternative would have a noticeable effect on the economy of the region.

Alternative D: "Enhanced Watershed Values and Wildlife Habitat"—This alternative would significantly increase vegetation allocations to wildlife and to non-consumptive uses. The allocation to livestock would drop 30 percent initially and 17 percent over the long term. The condition of watershed and wildlife habitat would improve significantly while ranch income would decrease.

Alternative E: "No Grazing"—Alternative E would eliminate livestock grazing on public lands in the Prairie Potholes EIS area. Some improvement in the condition of watershed and wildlife habitat would be experienced but not as substantially as in Alternatives A, B, C or D. Ranch income would be seriously reduced in this alternative and it would have a noticeable effect on the economy of the region.

Alternative F: "No Action"—The "No Action" Alternative would freeze the present management level. Watershed condition and wildlife habitat would mostly remain static but would decline slightly in some of the area covered in the EIS. Ranch income would also decline slightly.

The final EIS must be used in conjunction with the draft EIS and map supplement as it corrects and modifies the draft and incorporates public comments on that document. For further information contact Glenn W. Freeman, District Manager, Lewistown District Office, Bureau of Land Management, Airport Road, Lewistown, Montana 59457 or telephone (406) 538-7461.

SEPTEMBER 1981

COMMENTS REQUESTED

Comments on the draft EIS were requested from the following agencies, organizations and interest groups:

Federal Agencies:

Advisory Council on Historic Preservation
Department of Agriculture
  Forest Service
  Soil Conservation Service
Department of Defense
  U.S. Army Corps of Engineers
Department of Commerce
Department of the Interior
  Bureau of Indian Affairs
  Bureau of Mines
  Bureau of Reclamation
  Fish and Wildlife Service
  Geological Survey
  Heritage Conservation and Recreation Service
  National Park Service
Environmental Protection Agency
Science and Education Administration

Congressional Offices:

Office of Congressman Marlenee
Office of Congressman Williams
Office of Senator Baucus
Office of Senator Melcher

State Agencies:

Montana Agricultural Experiment Station
Montana Association of State Grazing Districts
Montana Bureau of Mines and Geology
Montana Department of Community Affairs
Montana Cooperative Extension Service
Montana Department of Fish, Wildlife, and Parks
Montana Department of Health and Environmental Services, Water Quality Bureau
Montana Department of Natural Resources and Conservation
Montana Department of State Lands
Montana Governor's Office
Montana Historical Society
Montana State University
Northern Montana College
Old West Regional Commission
University of Montana

Cooperative State Grazing Districts

Badlands CSGD
Buggy Creek CSGD
Cherry Creek CSGD
Coal Creek CSGD
Lohman CSGD
North Fork CSGD
North Phillips CSGD
South Phillips CSGD
Wayne Creek CSGD
Willow Creek CSGD

County Commissioners and Planning Boards:

Blaine County
Choteau County
Hill County
Liberty County
Toole County
Glacier County
Phillips County
Roosevelt County
Daniels County
Sheridan County
Valley County

Other Organizations:

Ada County Fish and Game League
Association of State Grazing Districts
American Horse Protective Association
Audubon Society
Chinook Rod and Gun Club
Blaine County Farm Bureau
Defenders of Wildlife
Friends of the Earth
Fergus County Farm Bureau
International Society for Protection of Mustang and Burros
Izaak Walton League of America
Lewistown Rod and Gun Club
Lewistown Bowhunters Association
Montana Chamber of Commerce
Montana Farm Bureau
Montana Farmers Union
Montana Historical Society
Montana Public Lands Council

Montana Stockgrowers Association
Montana Wilderness Association
Montana Wildlife Association
Montana Woolgrowers Association
National Council of Public Land Users
Natural Resources Defense Council
Nevada Outdoor Recreation Association, Inc.
Northern Plains Resource Council
Phillips County Cowbells
Public Lands Council
Trout Unlimited
Sierra Club
Valley County Development Center
Society for Range Management
Valley County Farm Bureau
Wild Horse Organized Assistance
Wilderness Society
Wildlife Management Institute
Wildlife Society, Montana Chapter

Individuals:

James Morgan (plaintiff in Natural Resources Defense Council, Inc., et al. vs. Rogers C.B. Morton, et al.)

SUMMARY

(The following is a revision of the Summary Section that appeared in the draft EIS. Additions appear in bold type.)

The Prairie Potholes Draft Environmental Impact Statement (DEIS) includes the Bureau of Land Management's (BLM) three northern divisions of the Lewistown District: the Havre, Phillips and Valley Resource Areas. The total area of the Prairie Potholes is around 15.5 million acres, encompassing all or parts of 11 northern Montana counties. This area contains about 1.75 million acres of public lands administered by the BLM.

Soil and vegetation inventories, water resource surveys, social and economic surveys and other resource inventories were begun in 1977 and completed in 1980. Throughout the resource inventory and survey process, the public was asked to suggest issues and concerns on the use of public lands.

Public participation in BLM's planning process was solicited through individual interviews in the EIS area, newspaper articles, radio announcements and the mailing of more than 1,700 brochures to livestock operators using public lands, residents and interested groups in the area. More than 200 comments were received as a result of this brochure. In addition, open house sessions were held in Havre, Malta and Glasgow, May 19-21, 1980, to solicit responses from the public. A list of agencies and organizations consulted or commenting on public land issues can be found in Chapter 5.

Based on resource inventories, issues raised by the public and procedural requirements, six alternative courses of action were developed. Alternative B, "Continuation of Present Management," was selected as the preferred alternative because of the resource benefits, cost and public comment. After reviewing the Draft EIS, decisionmakers will select the final grazing management plan to be implemented on public lands in the Prairie Potholes EIS area. This management plan may be the preferred alternative or it may incorporate parts of all alternatives.

Major concerns raised by the public fall into three broad categories: livestock production, wildlife habitat maintenance and watershed protection. Concerning ranching, local residents felt that the ranching industry should be protected and livestock use levels maintained through the development of grazing treatments, maintaining the quality and quantity of forage, controlling undesirable plant species, reseeding rangeland, controlling prairie dogs and making more water available for livestock. Wildlife concerns of the public included balancing wildlife and livestock use and maintaining and improving wildlife habitat. Other public concerns centered on the protection of watersheds and soil resources. Many people felt that things should be left as they are because longtime resource conservation practices in effect over the years has maintained or improved resource conditions overall on both private and public lands. BLM resource specialists raised issues almost parallel to those of the public. Major concerns brought forth both by the public and by BLM specialists are considered in this DEIS.

Two of the major livestock issues are the need to improve ecological range condition and increase forage for livestock. Of the 1,749,238 acres of public lands in the EIS area, approximately 6,803 acres are in poor ecological range condition, 623,022 acres are in fair condition, 1,035,208 acres are in good condition, 14,832 acres are in excellent ecological range condition and 69,373 acres are unclassified as to condition.

In this DEIS the six alternatives from which the final grazing management program will be selected are titled: (A) Enhanced Combined Vegetation Uses, (B) Continuation of Present Management (the Preferred Alternative), (C) Enhanced Livestock Forage, (D) Enhanced Watershed Value and Wildlife Habitat, (E) No Grazing and (F) No Action.

Proposals in Alternatives A, B, C and D would reduce the amount of range in poor and fair ecological range condition. Alternatives A, B and C increase the forage allocation to livestock ranging anywhere from 15-98 percent.

Initial livestock animal unit months (AUMs) would remain the same in Alternatives A, B and F, increase by 17 percent in Alternative C, decrease by 30 percent in Alternative D and decrease to zero in the first 7 years after implementation (the short term) in Alternative E. In the long term (22 years after implementation), Alternatives D and E would result in fewer livestock AUMs, Alternative F would not change livestock AUMs and Alternatives A, B and C would increase the livestock AUMs. The Preferred Alternative would increase livestock forage by 15 percent because of the implementation of mechanical and grazing treatments and the development of range facilities.

Another major issue is the protection and improvement of riparian vegetation along streams and around reservoirs. Riparian surveys show that 69 percent of the riparian habitat along 186 miles of stream is presently in unsatisfactory condition for wildlife habitat adversely influencing water quality, stream channel stability and the production of riparian vegetation cover. Management decisions to improve this habitat would restrict livestock grazing in specific riparian zones.

Both the public and BLM are concerned with maintaining adequate wildlife habitat while maintaining a balance between livestock and wildlife use.

Protecting soil by reducing erosion is another major concern of both the public and BLM resource specialists. Increasing vegetation cover through mechanical or grazing treatments would improve the capacity of the soil to absorb the water necessary for vegetation production. Increased absorption of moisture into the soil reduces runoff, erosion and maintains soil productivity. High levels of vegetation production would increase the amount of forage for both livestock and wildlife use. Other watershed concerns include limiting early season livestock use of wet soils in riparian zones to reduce soil compaction.

Commitments of manpower, materials, fuels and money expended during implementation of Alternatives A-E would be irretrievable and irreversible. Irretrievable losses would occur in these alternatives:

Alternatives E and F would result in an irretrievable loss in vegetation production from the potential expansion of prairie dogs.

Alternatives D and E would result in an irretrievable loss in permitted AUMs to livestock.

Alternative C would cause an irretrievable loss in prairie dogs and sport shooting of them.

Alternatives C, D and E might result in an irretrievable loss of several ranches because of income losses with an attendant loss in regional earnings.

Alternatives A-D might cause an irretrievable and irreversible loss to cultural resources if cultural sites were accidently destroyed.

A summary of the environmental consequences for each of the six alternatives follows.

ALTERNATIVE A: ENHANCED COMBINED VEGETATION USES

This alternative includes revision while continuing operation of the present 93 allotment management plans on 558,986 acres of public lands, implementation of 419 new AMPs on 1,062,754 acres, continued permitted grazing use on 392 non-AMP allotments on 121,253 acres and unallocated status on 6,245 acres.

Watershed condition would improve significantly with reductions in sediment yield of 58 percent, water yield of 51 percent and improved water quality in streams and reservoirs. Water consumption by livestock would increase by 869 acre-feet/year.

The acreage of good and excellent condition range would increase 35 percent by the year 2003 while the acreage in poor and fair range condition would decrease by 58 percent. The ecological range condition of vegetation in streamside and reservoir riparian zones and saline seeps would improve on 1,324 acres while remaining static on 5,287.

The vegetation allocations to livestock and wildlife would increase by 19 percent and 25 percent, respectively, by the year 2003. Production of red meat would increase by 5,505,885 pounds annually based on AUM increases.

Wildlife habitat for big game, upland game birds, waterfowl and nongame species (except prairie dogs) would improve. The number of prairie dog towns would remain the same but the total acreage would be reduced by 64 percent. Deer and antelope populations are projected to double.

Reservoir fisheries would increase by 12. Improved shoreline vegetation around reservoirs would increase by 243 miles. The streambank condition in high value riparian zones would improve to satisfactory on a total of 91 miles of stream, increasing by 800 acres the total in satisfactory habitat condition. Ninety-five miles (2,303 acres) would remain in unsatisfactory wildlife habitat condition. Riparian vegetation around saline seeps would increase by 575 acres.

Recreation opportunities on public lands would be improved significantly by greater populations of big game and waterfowl and an increase of 12 fishing reservoirs. Off-road vehicle (ORV) access or use would be hindered by the construction of 650 miles of fences and 281,000 acres of mechanical treatments. Opportunities for the sport shooting of prairie dogs would decrease significantly in the long term. Impacts to wilderness and visual resources would be insignificant.

Range developments would be designed or located as necessary to avoid disturbances of cultural sites.

This alternative would result in a total income increase of $495,000 on 395 ranches. The value of grazing permits would increase by $7,804,000 annually and 32 new ranch related employment opportunities would be created. The social well-being of 527 ranch families would be improved.

In the long term regional earnings would increase $2,087,000 annually and provide employment for 186 people. Personal property tax would increase by $54,000 annually.

The total implementation costs for range developments including designing, surveying and building would be $14,356,300.

ALTERNATIVE B: CONTINUATION OF PRESENT MANAGEMENT (THE PREFERRED ALTERNATIVE)

This alternative includes revision while continuing operation of the 94 present AMPs on 558,986 acres of public lands, implementation of 10 new AMPs per year during a 7-year period on 455,009 acres, continued permitted livestock grazing on 741 non-AMP allotments covering 728,998 acres and unallotted status on 6,245 acres of public lands. Compared to Alternative A, this alternative is a lower level management program in comparison to the alternative developed from public comment and benefits-costs analysis.

Watershed condition would improve with a reduction in sediment yield of 26 percent and water yield of 22 percent. Water quality would improve with less erosion and runoff. Consumptive water use by livestock would increase minimally by 528 acre-feet/year.

By 2003 the acreage of good and excellent ecological range condition would increase by 26 percent and acreage in poor and fair range condition would decrease by 43 percent. Riparian wildlife habitat along streams and around reservoirs would improve or remain in static condition on 3,000 acres with downward or static trend on 3,611 acres. Vegetation allocated to livestock and wildlife (in AUMs) would increase by 15 percent. Production of red meat would increase by 3,344,670 pounds annually based on livestock AUM increases.

Wildlife habitat for big game, upland game birds, waterfowl and nongame species (except prairie dogs) would improve moderately because of land and grazing treatments on public lands. Problem prairie dog towns would be identified during AMP development and treated according to the Montana BLM Prairie Dog Policy. The total acreage of prairie dog towns might be reduced to 615 acres but the impacts would apply to entire towns rather than all but 40 acres of it.

Reservoir fisheries would decrease by 1 even with the fencing of 7 reservoirs (36 acres) and improvement of 1,750 miles of shoreline vegetation. Habitat condition on streambanks would improve to satisfactory along 16 miles of streams, improving wildlife habitat on 388 acres. Riparian habitat in saline seeps below reservoirs would improve on 370 acres through rest treatments.

Recreational opportunities on public lands would increase in response to greater populations of game animals and waterfowl. A moderately significant increase in fishing quality would occur from the elimination of direct livestock use on 25 percent of the reservoir fisheries. Access and ORV travel would be hindered by construction of 300 miles of fences and the surface disturbances of 175,000 acres of mechanical treatments. Sport shooting of prairie dogs would increase in the short term but would be limited to the control of present populations on 615 acres in the long term. Effects on wilderness and visual resources would be insignificant.

Range improvement practices would be located to avoid cultural sites.

Implementation of this alternative would result in an increase of $296,000 in annual total income on 179 ranch operations. The value of grazing permits would increase by $4,635,000 and 22 new ranch related employment opportunities would be created. The social well-being of 239 ranch families would be improved.

Regional earnings would increase by $999,000 annually and employment would increase by 91 persons. Personal property taxes would increase by $27,000 annually.

The total implementation cost of this alternative would be $8,401,500.

ALTERNATIVE C: ENHANCED LIVESTOCK FORAGE

This alternative proposes continued operation while revising 93 present AMPs on 558,986 acres of public lands, implementation of 419 new AMPs on 1,062,754 acres, continued operation of 392 non-AMPs and unallotted status on 6,245 acres of public lands. The intent of Alternative C is to increase vegetation production for livestock at a proper use level (50 percent) for sustained vegetation production and improvement of forage.

Watershed conditions would improve substantially with reductions in sediment yield of 68 percent and water yield of 51 percent. Water quality would improve because of the substantial reductions in sediment and water yields. Water consumption by livestock would increase by 2,697 acre-feet/year.

The acreage of range in good and excellent ecological range condition would increase by 44 percent and range in poor and fair range condition would decrease by 73 percent. The ecological range condition of riparian, shoreline and saline seep vegetation would remain static or improve slightly on 6,611 acres. Vegetation allocations to livestock would increase by 17 percent in the short term, 94 percent in the long term. Production of red meat would increase by 3,849,930 pounds annually in the short term and 20,940,465 pounds in the long term.

Wildlife habitat for big game, upland game birds, waterfowl and nongame wildlife species would improve moderately, primarily because of vegetation production increases on the 920,000 acres of mechanical treatments. Deer and antelope populations are projected to increase 50 percent in the long term. Fisheries reservoirs would increase from 27 to 32 but would decline in quality and have reduced lifespans since they wouldn't be fenced. This would also be true of shoreline habitat which would increase by 243 miles due to construction of new water sources. Prairie dogs on 1,715

acres would be eliminated. Streambank habitat on high value riparian zones would improve to satisfactory condition on 5 miles of stream (121 acres) but 123 miles (2,982 acres) would remain in unsatisfactory wildlife habitat condition.

No significant increase in hunting or fishing quality would occur because of more conflicts with livestock. This would overshadow the gains in wildlife populations. ORV access or use would be hindered by the mechanical treatments on 920,000 acres (53 percent of the public lands) and construction of 650 miles of fences. There would be no sport shooting of prairie dogs since they would be eliminated in this alternative. No significant impacts to wilderness would occur. Surface disturbances by mechanical treatments might impair visual resources.

Range improvements would be located to avoid disturbing cultural sites.

In the long term ranch income would increase on 379 operations and decrease on 17 operations, resulting in a net increase of $1,936,000 annually. Permit values and ranch employment would increase by $30,831,000 and 127 positions, respectively. Social well-being would improve for 505 ranch families, a highly significant factor because of the large increases in income.

Regional economic impacts would be a short term increase of $3,696,000 in earnings annually, increased employment for 317 people and a $35,000 annual increase in personal property taxes. Long term increases would be $6,886,000 in annual earnings, 654 new jobs and $211,000 annually in property taxes. These increases would be considered as moderately significant overall.

The total implementation cost of range developments in this alternative would be $31,655,800.

ALTERNATIVE D: ENHANCED WATERSHED VALUE AND WILDLIFE HABITAT

This alternative includes revision while continuing operation of 93 present AMPs on 558,986 acres of public lands, implementation of 419 new AMPs on 1,062,754 acres, permitted livestock use on 121,253 acres in non-AMP status and unallocated status on 6,245 acres. This alternative would improve the soil, water and wildlife resources while maintaining light livestock grazing use.

Watershed condition would improve significantly with reductions in sediment and water yields because of increased plant production, litter cover and water infiltration. Sediment yield would be reduced by 58 percent, water yield by 50 percent. Water quality would improve significantly. Consumptive use of water by livestock would decrease by 485 acre-feet/year.

The acreage of excellent and good condition range would increase by 35 percent and range in fair and poor ecological range condition would decrease by 58 percent. Riparian and saline seep vegetation would improve significantly on 6,611 acres because of a 4-10 year rest treatment. Additional improvements in riparian zones would be expected as a result of light grazing use, spring deferment and rest treatments in AMP allotments.

Forage allocations to livestock would decrease by 95,132 AUMs initially, increasing in the long term to 274,983 AUMs (or 44,082 AUMs less than the present allocation of 319,065). Livestock allocations would decrease by 14 percent in the long term while wildlife and non-consumptive uses would receive increases of 200 and 113 percent, respectively. Production of red meat would decrease by 3,085,740 pounds annually in the long term from the present 22,334,550 pounds annually.

Wildlife habitat for big game, upland game birds and waterfowl would improve as would nongame habitat. Increased vegetation cover from mechanical and grazing treatments would reduce prairie dog habitat. Reservoir fisheries would increase by 17. Streambank wildlife habitat condition on high value riparian zones would reach satisfactory condition on 4,509 acres along an additional 128 miles of streams. Riparian zone condition would improve on 1,933 acres of saline seeps below reservoirs, a 221 percent increase.

Recreational opportunities on public lands would increase because of greater populations of big game and waterfowl. Fishing opportunities would increase with the addition of 17 fisheries reservoirs. ORV access and use on public lands would be hindered by construction of 400 miles of livestock management fences and mechanical treatments of 225,000 acres of public lands. Sport shooting of prairie dogs would continue since control of present populations is proposed in this alternative. No significant impact would occur to wilderness suitability or visual resources. Scenic values would be improved from denser vegetation in saline seeps, around 27 reservoirs and along 186 miles of streambank riparian zones.

Range improvements would be located to avoid cultural sites.

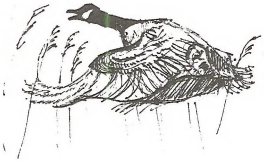
This alternative would result in a short term decrease in annual ranch income of $1,438,000 on 404 operations. Long term annual decreases would be $717,000 on 318 operations and long term annual increases $44,000 on 86 ranches. Permit value would decrease by $9,467,000 in the short term and $4,512,000 in the long term. Ranch related employment opportunities would decrease by 44 positions in the short term and 21 positions in the long term. The social well-being of 115 ranch families would increase in the long term while the social well-being of 424 ranch families would decrease. These decreases would be highly significant.

This alternative would increase retail sales in local businesses engaged in recreation and wildlife related retailing and services in Phillips, Blaine, Hill and Valley Counties. This would create employment for 7 people.

Ranchers' attitudes toward BLM would be negative due to decreased forage allocation to livestock and implementation of AMPs. Recreationist and environmentalist attitudes would be positive due to increased wildlife and reduced livestock conflicts.

Long term regional economic impacts resulting from this alternative would be insignificant even though earnings would decrease by $589,000 annually, employment by 78 positions and personal property taxes by $38,000 annually.

Total implementation cost of this alternative would be $17,774,900.



ALTERNATIVE E: NO GRAZING

This alternative would eliminate livestock grazing on public lands in the EIS area, affecting 904 allotments.

Watershed conditions would improve slightly with reductions in sediment yield of 25 percent and water yield of 9 percent. Water quality would improve significantly. Consumption of water by livestock would decrease from 3,523 acre-feet/year to zero.

By 2003 the acreage of good and excellent condition range would increase 16 percent while range in poor and fair ecological range condition would decrease by 26 percent. The condition of riparian, shoreline and saline seep vegetation would improve on public lands over the entire EIS area.

Vegetation on public lands would be allocated entirely to wildlife and non-consumptive uses. Production of red meat on public lands would decline from 22,334,550 pounds annually to zero in the short term.

Wildlife habitat would improve substantially for big game, upland game, waterfowl (except Canada geese) and nongame species (except those that thrive due to lower ecological range condition). Prairie dog towns could potentially expand from the present 1,715 acres to 239,000. This would be the reason for the slower improvement in watershed conditions than might otherwise be expected. Fisheries reservoirs would decline by 3 because of natural sedimentation. The streambank habitat condition on 186 miles of high value riparian zones (4,509 acres) would improve in the long term to satisfactory habitat condition.

Wilderness and visual values would improve with the elimination of livestock and the resulting increase in vegetation.

There would be no disturbance of cultural resource sites.

Implementation of this alternative would result in a total income loss of $12,311,000 annually on the 558 ranch operations involved. Grazing permit valuations would decrease by $31,258,000. There would be a loss of 117 ranch related employment opportunities. The social well-being of 744 ranch families would be decreased. The total impact of these decreases would be highly significant.

This alternative would increase retail sales of local businesses engaged in recreation and wildlife related retailing and services and create employment for 7 people.

Rancher attitudes would be extremely negative toward this alternative.

Regional economic impacts from implementation of this alternative would be moderately significant because of losses in annual earnings of $5,516,000 in the short term and $6,543,000 in the long term. Employment opportunities would decrease by 570 in the short term and 669 in the long term and personal property taxes would decrease $239,000 annually through the short and long term.

Total implementation of this alternative would cost about $15,126,500, primarily due to construction of 5,000 miles of exclosure fences around public lands.

Recreational hunting opportunities would significantly increase with substantial increases in big game populations. Fishing opportunities would decline slightly in the long term. Construction of 5,000 miles of fences would restrict ORV access. Prairie dog sport shooting opportunities would increase significantly.

ALTERNATIVE F: NO ACTION

This alternative would freeze the present range program as it is today. The 93 AMPs currently in effect would continue but no new range facilities would be constructed and no changes would be made in the levels of livestock use. Non-AMP status would continue on 1,184,008 acres and unallotted public lands would total 6,245 acres.

Watershed condition would deteriorate with an increase in sediment and water yields. Sediment yield would increase by 14 percent, water yield by 14 percent also while the quality of surface water would deteriorate in the long term. Consumptive use of water by livestock would remain at 3,523 acre-feet/year.

Good and excellent condition range would decrease by 12 percent and the acreage of fair and poor condition range would increase by 20 percent. The condition of riparian, shoreline and saline seep vegetation would decline or remain static on 6,611 acres. Vegetation allocations to livestock would stay at 319,065 AUMs in the short and long terms. Production of red meat would decrease by 3,066,840 pounds annually.

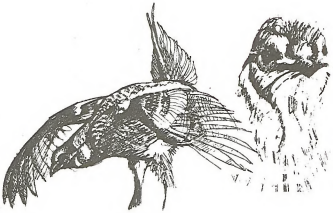
Wildlife habitat for big game, upland game birds, waterfowl and nongame species (except prairie dogs) would remain unchanged. Prairie dog habitat could increase to 239,000 acres. Reservoir fisheries would decrease to 12 as none of the present 27 reservoirs would be fenced. Streambank habitat condition on 6 miles of high value riparian habitat would decline from satisfactory to unsatisfactory habitat condition. There would be no increase in riparian vegetation in saline seeps below reservoirs.

Recreational opportunities on public lands would remain unchanged for big game and waterfowl hunting. The number of fisheries reservoirs would decrease to 12, reducing fishing opportunities. ORV access and use of public lands would remain unchanged. The opportunity for sport shooting of prairie dogs would increase significantly with the expansion of prairie dog towns to their biological potential of 239,000 acres. There would be no impact to wilderness in this alternative. Maintenance of current range improvements would be allowed in the Bittercreek **Wilderness Study** Area. There would be no significant impairment to visual resources if this alternative were implemented.

No disturbance of cultural sites would occur since there would be no development of range facilities.

This alternative would not affect "on paper" short term ranch income, ranch employment opportunities, permit value or the social well-being of ranch families. While there would appear to be no long term effects or changes on paper from the present situation in this alternative, declining range conditions would continually decrease the livestock forage base. This would eventually lower livestock production as discussed earlier.

There would be no implementation cost for this alternative.



Sharptailed Grouse

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INTRODUCTION

The Final Prairie Potholes Vegetation Allocation Environmental Impact Statement (EIS) incorporates by reference the draft EIS that was published in March 1981. This document consists of an abstract of the EIS, a list of the agencies, a revised summary of the alternatives (revisions in bold print), organizations and individuals asked to comment on the draft EIS and "Public Involvement" and "Corrections, Revisions and Additions" Sections.

The "Public Involvement" Section describes the public participation that took place while preparing the EIS. This section includes comments received by BLM from letters and summaries of the public hearings. Comments from both the hearings and the letters are reprinted in this section. BLM's responses are listed in "Responses to Comments and Letters."

The "Corrections, Revisions and Additions" Section corrects errata and revises some statements made in the draft EIS. As part of this section, some pages of the draft EIS have been reprinted with revisions in bold print. There is also an appendix that was not printed in the draft EIS, Appendix 4.22. After this is the "References" and "List of Preparers" addenda.

PUBLIC INVOLVEMENT

CONSULTATION AND COORDINATION

The Prairie Potholes Draft Environmental Impact Statement was prepared by specialists from the BLM's Lewistown District Office with assistance from BLM's Havre, Phillips, and Valley Resource Areas and the Montana State Office. Disciplines and skills used to develop this EIS were: vegetation and rangeland use, animal husbandry, recreation, climate, sociology, economics, geology, hydrology, soils, cultural resources, wildlife, fisheries, graphics, editing, printing, public affairs and typing. Writing of the EIS began in September 1980, following a complex planning and data gathering process stretching back to 1977. The process included inventories of resources, public participation, coordination with other agencies and a modified planning effort. Consultation and coordination with agencies, organizations and individuals occurred in a variety of ways throughout this process.

PUBLIC INVOLVEMENT AND CONSULTATION DURING DEVELOPMENT OF THE DRAFT EIS

An intense public participation process was conducted during the development of this EIS. An analysis document, a sampling of public opinion by interviews of people in the Hi-Line communities, a program to draw issues from the public and a notice in the "Federal Register" were all used to elicit public views on the EIS. This process also drew useful comments from other agencies.

The major portion of the public participation process was identifying issues which the public wanted considered in this EIS. This procedure consisted of the mass mailing of an information brochure, letter and return mailer asking for issues people felt should be considered in the Prairie Potholes EIS. A summary of these responses was provided in another brochure mailed back to the original recipients.

Included with the second brochure was a schedule for public open houses held in the Havre, Phillips and Valley BLM Resource Area Offices. The open houses were used to explain the EIS process, gather additional views and inform people of how the issues would be used. From this procedure, an additional alternative was added to the EIS—the "Continuation of Present Management." After an analysis of this alternative, it was selected as BLM's "Preferred Alternative."

As can be seen, the public's role was vital in the development of this EIS.

The Montana State Historical Preservation Officer (SHPO) was consulted and commented on this EIS. SHPO along with the Advisory Council on Historic Preservation had an opportunity to review the draft EIS.

Informal consultation with the U.S. Fish and Wildlife Service regarding threatened and endangered species also took place during the preparation of this EIS. Region 6 personnel of the Montana Department of Fish, Wildlife and Parks reviewed the draft EIS also.

PUBLIC COMMENTS ON THE DRAFT EIS

After the draft EIS was released to the public and filed with the Environmental Protection Agency on March 23, 1981 a period of 61 days was allowed for public review and comment. The *Federal Register* of March 23, 1981 notified the public that the EIS had been published and announced public hearings at Glasgow, Chinook, Malta and Helena, Montana during the week of May 22-27.

A news release was issued on March 23, 1981 to national wire services, daily and weekly newspapers, and radio and television stations throughout Montana announcing that the draft EIS was available. The news release, which received wide coverage, summarized the draft EIS and gave dates, times and locations for public hearings.

Copies of the draft EIS were sent to organizations and individuals and to all public lands livestock operators in the Prairie Potholes EIS area. Approximately 1,500 reading copies of the draft EIS were distributed. Public reading copies were available at BLM offices in Washington, D.C., Billings, Glasgow, Havre, Malta and Lewistown, Montana, at Montana universities and colleges and at public libraries in the area covered by the EIS.

A professional court reporter prepared a verbatim transcript of each public hearing. Comments from the transcripts have been summarized in this document; they appear under numbers 1-16 in the following pages. The comments numbered consecutively from 17 on are those received in letters; the 39 letters received are reprinted in the pages following the comments from the hearing. Our responses to all oral and written comments appear following the reprinted letters.

Copies of the final EIS will be forwarded to the Secretary of the Interior and to the Environmental Protection Agency.

SPEAKERS AND LETTER WRITERS

Speaker Number	Name	Comment Number	Meeting Location and Date
1	Manson Bailey, Jr.	1,2,3,4,5,6	Glasgow, April 22
2	Gene Etchart	7	Glasgow, April 22
3	Bob Inman	8,9,10	Chinook, April 23
4	Gary Stuker	11,12,13,14	Chinook, April 23
5	Willard Lybeck	15	Chinook, April 23
6	Ray Beck	16	Helena, April 27

Letter Number	Name	From
1	Johanna H. Wald	Natural Resources Defense Council, Inc.
2	Robert McColly	Hinsdale, MT
3	Richard A. Strait	National Park Service, Denver, CO
4	Marlen Tweten	Missoula, MT
5	Wallace Warburton	Cherry Ridge Grazing District
	David Warburton	Blaine City, MT
	Blanche Warburton	
6	Marcella Sherfy	Montana Historical Society, Helena, MT
7	Wally Steucke	Fish and Wildlife Service, Billings, MT
8	John G. Wood	Fish and Wildlife Service, Billings, MT
9	C.E. Hitch	Billings, MT
10	Willie Dall	Diamond Willow Ranch, Malta, MT
11	Mons L. Teigen	Montana Stockgrowers Association Inc., Helena, MT
12	Van K. Haderlie	Soil Conservation Service, Bozeman, MT
13	Russell L. Finruk	Chinook, MT
14	Reed Lommen	Department of State Lands, Helena, MT
15	Walt Riggin	Valley Cooperative State Grazing District, Glasgow, MT
16	Gene Etchart	Hinsdale Livestock Company, Glasgow, MT
17	Walter Cornwell	Buggy Creek Grazing District, Glasgow, MT
18	John W. Black	Willow Creek State Grazing District, Glasgow, MT
19	Paul Cornwell	Badlands State Grazing District, Glasgow, MT
20	Daniel A. Poole	Wildlife Management Institute, Washington, DC
21	Orrin Fossum	Valley County Conservation District, Glasgow, MT
22	John W. Black	The Black Ranch, Hinsdale, MT
23	L.W. Hagener	Northern Montana College, Havre, MT
24	Steven K. Page	Page Whitham Land & Cattle
25	H. Geizer	Bureau of Mines, Washington, DC
26	James Phelps	Montana Audubon Council, Billings, MT
27	Mark Etchart	Montana State Senate, Glasgow, MT
28	Wayne J. Putz, Sr.	Glasgow, MT
29	Manson H. Bailey, Jr.	Valley County Development Council
30	Walter Cornwell	Cornwell Ranch, Glasgow, MT
31	Hank Fischer	Defenders of Wildlife, Missoula, MT
32	Keith Van Ness	National Wildlife Federation
	Thomas D. Lustig	
33	Gary Stuker	Havre, MT
34	Reuben G. Whiss	Billings, MT
35	Thomas Whitford, Sr.	Environmental Quality Rights Protection
36	James A. Rawlings	Bureau of Reclamation
37	James W. Flynn	Department of Fish & Game, Helena, MT
38	Roger L. Williams	U.S. Environmental Protection Agency, Denver, CO
39	Louis S. Wall	Council on Historic Preservation, Lakewood, CO

1 (Speaker 1): This has been in process for some 40 years, building to this point. There has been a lot of work and cooperation by all parts of the community, both social and sportsmen, and the ranchers have all had a part in this and the government and state agencies.

There has been a great advancement during this time and we are well aware that there is still some to be made.

2 (Speaker 1): This is good news. There is probably no more damaging thing in our area to proper conservation than the prairie dog. It seems that the area in which they habitat is completely ruined for any other use. This has been the notice down through the years. There are plenty of prairie dogs and I don't think we have to worry about the extinction of them, so we are pleased to note that there will be a control of prairie dogs.

Of course it says: "if no endangered species," and of course you're speaking of the black-footed ferret, and I surely don't think they are in our area.

3 (Speaker 1): It was good to note that you did refer to the weather conditions. Now somebody off in Washington or a completely different part of the United States or even a different part of Montana do not know the conditions we have here relative to our livestock or our wildlife, and we note that you are going to try and improve winter habitat for the antelope, and in my original written statement, I just want to reiterate that it isn't the habitat or the browse that is hard on the antelope here; it's the wind chill factor and the snow cover that causes the antelope to migrate to the valley, and the very tough winters, and, of course their change of habitat, as well as fast moving trains destroy a lot of antelope, and of course in the change in browse or habitat, their stomachs do not respond and this alone kills many antelope, so just the improving of the habitat for antelope in winter areas is fine in a mild winter.

4 (Speaker 1): Also, in deer habitation, you realize that the better creek areas where claimed by men in their private holdings, and that these winters again—you may have fine summer habitat for deer out on the open ranges that you manage, but in the winter-time, they do migrate to these private lands and these better areas along the creek bottoms.

5 (Speaker 1): One question—I notice that you are going to fence 100% of the reservoirs. Now I didn't read it close enough, but does this mean—I mean for waterfowl habitat—would this be releasing water for livestock then, or how are these to be controlled? There is a question there.

6 (Speaker 1): Here again, I want to state that I have been associated with wildlife for many years and know that they can prosper in a multiple use situation and have, over the years. You want to remember that 40 years ago, there were no deer and very few antelope on these plains and that something has happened, and there was a change of management, and there were many things that had an influence, including the coyote and the 1080 Program. The game management people will argue with me on this, but there is a distinct relation between antelope and deer populations and the coyote and the control of the coyote.

I think that for now that will cover my statement. Like I say, I do have several questions.

7 (Speaker 2): Specifically, as I read Alternative B, it seems as though in order to improve some of the riparian habitat areas that is proposed in there that you are going to build something like 32 miles of fence. Unless my arithmetic is inaccurate, it would be a 200-foot wide lane, one fence on each side of the creek, for something like 16 miles of creek, 16 miles of fence on one side, 16 miles on the other side, 200 feet intervening.

To me, I just don't see how you can do that. I don't think it will work. I think it's impractical. I would wonder where the funds would come from to build the fence; I would wonder who would maintain it once it was built.

I don't question the objective. My suggestion would be that probably some kind of a restoration system might achieve this objective without trying to get into this business of running a fence down each side of the creek for 16 miles.

8 (Speaker 3): I would like to put it into the record that we would like some consideration for fire guards in all of our AMPs under this. In our isolated population areas we have a little lightning that could just wipe out four or five of our members and this is what I want to bring in, that the present A and B do not have fire guards in them.

9 (Speaker 3): We would also like to comment on the vast number of small isolated tracts and we hope maybe the BLM will find some way to get rid of these landlocked 40's and 80's and 160's and also improve their land exchange procedures.

10 (Speaker 3): Maybe we could work closer with the district members and the Havre area on the BLM.

11 (Speaker 4): We would like to see a little more of the vegetative enhancement contained in A and then also some of the wildlife enhancement in D.

12 (Speaker 4): There are some unidentified antelope areas, which are critical for Canadian antelope herds, which are not identified, such as sagebrush, mainly, sagebrush areas.

13 (Speaker 4): I think we should identify some of those areas and maybe watch sagebrush treatments and stuff in those areas or even spraying, although I don't believe the BLM is going to do much spraying anymore. It will be by vegetation manipulation to get rid of the sagebrush.

14 (Speaker 4): I am against some of the plowing operations and totally reseeding. I think by chipping or chiseling and scalping, you can accomplish far better results which even the livestock will use better rather than totally plowed areas.

15 (Speaker 5): My name is Willard Lybeck, from Zurich. I am on the BLM Advisory Board and the thing I would like to see done more on BLM ground is more mechanical chiseling, working this ground, especially this old crested wheatgrass ground that has got quite sod-bound. I think that going in and working this ground would do a lot for it. It has done a lot for me on my own private ground, and in reading articles in the last *Montana Farmer-Stockman*, since 1947 until 1978, BLM has reduced their carrying capacity by 31%.

16 (Speaker 6): We feel that the problems are concerns that remain in this area and can be worked out if local operators are involved.

LETTERS

1a

Natural Resources Defense Council, Inc.
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SAN FRANCISCO, CALIFORNIA 94108
415 421-6561

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1725 I STREET, N.W.
SUITE 600
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202 223-8126

New York Office
40 EAST 69th STREET
NEW YORK, N.Y. 10021
212 249-4945

June 12, 1981

Glenn W. Freeman, District Manager
Lewistown District Office
Bureau of Land Management
Airport Road
Lewistown, Montana 59457

RECEIVED
JUN 16 1981
BLM
LEWISTOWN, MONTANA

Re: Draft Environmental Impact Statement/Vegetation Allocation in the Prairie Potholes Area of Montana.

Dear Mr. Freeman:

I have briefly reviewed the above-captioned document on behalf of the Natural Resources Defense Council, Inc. (NRDC) and wish to submit the following comments on its contents. Despite the fact that the official comment period has expired, I hope you will be able to give them some consideration.

As you may already know, NRDC has long been concerned with the management and current condition of the publicly owned rangelands in Montana and in other western states. We believe that adequate range environmental impact statements (EISs) are the key means by which the Bureau can not only fulfill the requirements of the National Environmental Policy Act of 1969, but also identify the changes in current management and conditions that are necessary to fulfill the multiple use and stewardship mandates of the Federal Land Policy and Management Act.

17 The instant EIS is well written. It deals concisely and in a well organized manner with a very large land area. It reveals that there are some serious management problems in that area, including, in particular, deteriorated conditions on 69% of its riparian resources.[1/] It does acknowledge the need

1/Unless otherwise indicated, all page references are to the Draft EIS.

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Prairie Potholes EIS
June 12, 1981
Page Two

to improve these and other unsatisfactory conditions as well as to reserve at least 50% of annual vegetation for non-consumptive uses. Nonetheless, the document treats a number of key elements inadequately or superficially.

18 This EIS has ostensibly been prepared in order to assess the impacts of different allocations of land and vegetation to livestock and other uses. According to Bureau regulations, allocation decisions are supposed to be made in the land use planning context. The draft EIS refers briefly to a "modified planning effort" for the EIS area. P. 2. However, it provides absolutely no information about the contents of any of the existing or "expanded[" MFPs for that area. Id. Readers are not told what their goals or objectives for resource management are or what constraints, if any, they place on grazing to protect wildlife, riparian areas or any other resources. Nor is there any explanation for the failure to provide this information. Let alone any analysis of the rationales for any of the undisclosed planning decisions, their resource trade-offs or the degree to which they will serve as an adequate basis for future management. Instead, all readers are given is a "resource matrix" which purports to portray the "objectives" underlying the alternatives considered. Appendix 1.2, p. A-2. Neither the source of these objectives nor the relationship, if any, between them and the land use plans is explained. Even if such explanations were provided, however, it is clear that the resource matrix could not substitute for the lack of information about the plans themselves. Absent such information, it is impossible to understand or evaluate the basic management decision with which this EIS purports to deal—i.e., the decision to allocate the lands involved to livestock.

19 The alternatives section is "the heart" of every EIS. Council on Environmental Quality, Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act of 1969, 40 C.F.R. §1502.13. Unfortunately,

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Page Three

the alternatives considered in this EIS appear to have been improperly selected. Thus, although they involve different levels of livestock use, they clearly appear to have been designed to justify the proposed action. Moreover, all of the "action" alternatives, including the proposed action, reveal a pre-determined intention to implement intensive management on the majority of the lands in the EIS area and to rely on extensive land treatments. The alternatives "to" the proposed action, except for no grazing and no action, are not really alternatives to it; they are simply variations on it and not very significant variations either—except in terms of their respective costs and acreages of mechanical treatment. Clearly, the EIS should have considered a non-intensive alternative. Finally, at least two of the alternatives appear to have been mis-named. Thus, although the proposed action is entitled "Continuation of Present Management," as indicated it does not, in fact, propose to do so—except insofar as initial allocations to both livestock and wildlife are concerned. Even more importantly, the EIS plainly suggests that the actions proposed for Alternative D, which is entitled "Enhance Watershed and Wildlife Alternative," were either not properly selected or do not constitute all the actions implicit in that title. Thus, for example, there is little difference between the watershed consequences of Alternative D and Alternative C, "Enhance Livestock Forage." Summary of Environmental Consequences by Alternative, p. 17. Moreover, Although Alternative D is predicted to result in "highly significant" increases in big game, upland game birds and waterfowl populations in the area, the acres of habitat for any of these species that will improve under that alternative do not exceed the acres that will improve under Alternative C. Indeed, in the case of waterfowl habitat, even fewer acres will improve. Id. These comparisons indicate that, even if the authors intended to create an alternative which would "enhance watershed and wildlife," they clearly were unsuccessful.

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Prairie Potholes EIS
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Page Four

Finally, the draft treats key features of the proposed action and their rationales in a superficial manner. These features include the initial allocations, riparian protection, proposed land treatments, the prairie dog proposal and monitoring.

The proposed action contemplates using "current permitted use" for livestock as the initial allocation. P. 7. Such use is assumed to be the amount presently utilized. P. 5. The draft contains no explanation for the failure to include any actual use or average use figures. More importantly, it supplies no explanation for the decision to use existing use as the initial allocation. Such an explanation would be necessary in any case: the Bureau simply cannot ask readers to assume that its proposed allocation is correct. It seems to me to be particularly necessary here because the allocation proposal is coupled with the equally unexplained assertion that current livestock use plus current wildlife use does not exceed 50% of the available forage, p. 7, as well as that it is consistent with proper management of riparian areas (see below) and proposed grazing systems. Id. The reasons underlying this assertion also should have been supplied. In addition, I found the meaning of the phrase "target allocation", p. 5, extremely unclear. Does it mean that the proposed allocation 21 allocations may be changed in the short term or just the long term? Will the total allocation to livestock (or wildlife) be changed in the short term or just the long term? What procedures will be followed in the case of any changes? Finally, as far as the long term allocation that is proposed for wildlife is concerned, I must say that preserving the present inequitable allocation of 6% of the available forage to wildlife and 94% to livestock, p. 7, hardly seems to me to be responsive to one of the major wildlife concerns raised by the public, p. 1, or to the purpose of the EIS, p. 1—even assuming that present wildlife populations are "adequately provided for under present allocations." P. 5.

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As indicated above, riparian areas should have been treated in greater detail. Bureau policy recognizes the importance of riparian areas as well as the need to protect and restore them in connection with grazing management. See, Wetland Riparian Area Protection and Management, BLM Manual, 6740 (Oct. 1, 1979). The Manual provides that "all measures to minimize the damage and to preserve and restore" riparian areas must be considered. Id., 6.13C (emphasis in the original). Bureau instructions require that "[p]rescribed actions in grazing EISs must include programs to insure proper management of" riparian areas. They also note that riparian areas "are particularly sensitive to and usually impacted by grazing use. Thus allocations must take into account not only the vegetation allocation itself but also the associated impacts which will occur (i.e., animal congregation and trampling)." Instruction Memorandum No. 80-225 re "Requirements for Fish and Wildlife Habitat Protection and Enhancement in the Rangeland Management Program" (January 18, 1980) p. 1; (Emphasis added).

The draft EIS acknowledges the importance of riparian areas as well as some of the problems posed by livestock use of them. The proposed action contemplates giving "388 acres of high value streamside riparian zones" total rest from livestock for four to ten years. P. 7. Given the importance of riparian areas generally, the well documented impacts of grazing on them, current riparian conditions in the area and current Bureau policy, these actions are certainly justified. However, the draft reveals that, even if they were implemented, substantial amounts of riparian habitat, including "high value riparian" zones, will continue to decline in condition or remain static. P. 95. The EIS does not acknowledge the inconsistency between these impacts and Bureau policy and instructions. Moreover, it does not explain why livestock is proposed to be excluded from some high value areas but not others. Nor does it explain how "the associated impacts" of grazing were taken into account in the proposed allocations for unprotected areas.

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the criteria which will guide their location and implementation must be incorporated into these plans.

The proposed action also contemplates reducing the existing 1,715 acres of prairie dog towns by 1,100 acres. No reason is supplied for this action. Since the draft asserts that "prairie dogs compete with livestock for forage," p. 85, it seems reasonable to assume that this action has been proposed to increase livestock forage. Even if prairie dogs do compete with livestock, and no support for this assertion is supplied, it is not clear to me why 1,715 acres of prairie dog towns out of a total of 1.75 million acres of public lands is too much--especially when no reductions in livestock use are proposed.

24

Finally, monitoring is also treated in insufficient detail. The draft purports to recognize the import of monitoring, p. 4, but provides no detailed discussion of the monitoring program that will be implemented and no cost estimates for its implementation. While it is obviously important to have a good monitoring program--and I certainly hope yours is--it is equally important to have the funds needed for implementation available.

25

Thank you in advance for whatever consideration you are able to give these comments. If you have any questions about them, I hope you will not hesitate to contact me.

Sincerely,

Johanna H. Wald

JHW/mn

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As indicated above, the proposed action contemplates a substantial amount of vegetative treatment in the EIS area. The draft's discussion of this feature of the proposed action is extremely superficial. Unlike other EISs, it does, at least, explain how treatment areas in general were selected. However, it is impossible to tell which particular areas will be treated, since the draft concedes that "treatments could be done on any or all of the 70 proposed or 93 existing AUMs...." P. 7. The criteria that will be used to decide which areas will be treated are not supplied. It is also impossible to determine what techniques will be used, since the draft concedes that "several recommended methods" are not even analyzed. P. 5. No reason is given for the failure to analyze the impacts of those methods. In any case, the impact assessments of those methods that are analyzed are extremely general. Moreover, although the EIS asserts that all resources, including wildlife, will benefit from these treatments or at least will not be harmed by them, it does not supply any of the criteria that will be applied to protect wildlife values, any site-specific information about wildlife habitats, or any site-specific analysis of the impacts of these proposed actions on wildlife. As such, it provides no assurances that wildlife will not be adversely harmed by these treatments as they have been in the past. Finally, it is not clear whether the criteria that will be applied for site selection or to protect wildlife and other resources will be incorporated in the applicable land use plans. Because decisions to engage in land treatments as well as other so-called "range improvements" like water developments,[2] are essentially decisions to allocate the lands involved to livestock,

[2] Water developments and fences are treated even more superficially than conservative treatment projects. Although the EIS does concede that the former will allow livestock to expand into areas which they now use only lightly or not at all, but which wildlife do use. Unfortunately, however, it makes no attempt to relate the proposed developments to wildlife habitat areas or to supply any criteria that will be used to ensure that critical areas will be avoided in the selection of project locations.

2a

Glen W. Freeman
District Manager
BLM Office, Airport Road
Lewistown, Montana 59457

RECEIVED
1980 MAY 18 1981 BLM
LEWISTOWN, MONTANA
DM ___ ADD ___
DD ___ ___
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RE: Prairie Potholes EIS

I support and recommend adoption of the Alternative "B" Proposal (Continuation of Present Management) as outlined in the Prairie Potholes EIS but with some reservations which I shall attempt to list.

Administration

During the 1970's there seems to have been a steady progression of domineering, dictatorial attitudes in the field of Public Land management. Prior to that time, with a few localized exceptions, there existed a good spirit of cooperation between BLM and the Montana State Grazing Districts. During those many years of amicable relations, very few problems of administration arose and those that did were resolved in an atmosphere of camaraderie between the BLM and State Grazing Districts with a mutual concern for the operators and the resource. With the more recent trend of BLM dominance, the emphasis has been, not on mutual solutions to problems, but, on who can submit and over power who. Needless to say, this state of relationship can never be conducive to the things that are important to both parties, protection and promulgation of the resource together with intelligent utilization. It submit that we, BLM and State Grazing Districts, must return to that spirit of useful cooperation that previously existed and accomplished so much.

26

Range Improvements

It seems completely unreasonable to me that lands that have been used for the purpose of wildlife support and livestock grazing for many years can be so devoid of improvements and facilities as to require the $8.4 million expenditure that Alternative "B"

27

2b Page 2

27 sets forth. Certainly there are some things that need to be done that will require a capital outlay---noxious weed control, prairie dog control, some watering facilities, but very little else. I would expect that the cost could be trimmed to a fraction of the $8.4 million.

28 Also, every dollar of Range Improvement funds that has been spent on the public lands has been spent with the benefit or consideration of wildlife as a major criteria, whereas any wildlife moneys that have been spent on those same lands have been only for wildlife support or enhancement. In a spirit of true multiple use, those wildlife expenditures should also have some consideration for livestock. Case point, bird reservoirs and water basins should be constructed where there exists a shortage of livestock water. Such things as that would go a long way toward fulfilling the intent and purpose of Multiple Use.

Income

29 Somewhat related to the topic of expenditures is income to and for the use of the public lands. Origin on the list of facts it should be noted boldly that livestock grazing is the one use of the public lands that pays its own way in the form of grazing fees imposed upon the permittees. I point this out, not in complaint of the system, but, to emphasize that the livestock use supports itself and is not wholly dependent on congressional appropriation as are the wildlife and recreation uses.

Administrative Costs

Surely many thousands of dollars could be trimmed from administrative costs if the max power were limited to the number actually needed for the job. In my opinion, if ever there were an agency that is overstaffed, it has to be BLM. Good stewardship of the land does not require hordes of people grinding out tons of paper work. All that is necessary is an objective overview of the resource.

Problem Source

It should also be noted here that those same hordes of people that excessively build up administrative costs also tend to breed and nurture those problems and

2d Page 4

33 incompatibility and become at least partially detrimental to livestock. It must be remembered that the majority of land in Prairie Potholes Area is in private, fee simple ownership---68% according to EIS tables. Also, the private lands are generally better quality and higher in productivity than the public lands. As a

34 result the private landowner is contributing far more to the support of wildlife than is provided on public lands, but seldom if ever is recognition of such given by BLM, Wildlife Groups, or anyone else, for that matter, other than the landowners themselves.

I wholeheartedly believe in multiple use, but please consider the use of public lands in its proper perspective. The landowner needs and deserves recognition of his contributions as well.

Recommendation

Again, I support and recommend the Alternative "B" (Continuation of Present Management) but there must be some common sense applied to administration of the lands. With the inclusion of the thoughts that I have set forth above, I am sure that the Prairie Potholes Area, as well as any other public lands, can be administered to attain a goal of true multiple use, and proper resource utilization at a minimum of cost.

I urge you to consider the points that I make and incorporate them into the use plan as it is finally adopted.

Respectfully yours,

Robert McCully

ROBERT MCCULLY
MISSOULA, MONTANA 59801

2c Page 3

contentions that have been prevalent in recent years. These employees, in trying to justify their employment, tend to resort to very minor details since there are few if any major problems to solve. In so doing, they begin to trend on what livestock operators generally consider their sacred ground. What results is, at best, a serious personality clash, and at worst, a complete stalemate or all

30 out war of resistance. Very simply the problems would not be there if there were only BLM employees enough to handle the important and worthwhile duties of overview.

AMP's

Those AMP's that are now in operation are the result of considerable study and effort as well as no small amount of capital expense by both BLM and the livestock

31 operators. They are contracts that were entered into in good faith and, generally, are working well. To scrap them and start all over with something new that may or may not work as well would be, in my opinion, a gross error of judgement. As I studied the EIS proposal, I reached the conclusion that any changes in existing AMP's would benefit wildlife and wildlife only, and in each case to the detriment of the livestock operation. I suggest that any existing AMP's should be left intact without revision except with concurrence by the operator on any obvious deficiencies that need correcting. New AMP's should merit the same terms and considerations as the existing ones.

The Compatibility

32 Recreation. As such, with the exception of hunting, is not an important use of these public lands, so wildlife and livestock are the remaining principal users. These uses can be very compatible if either use does not attempt to dominate the other. The same habitat that is good for livestock is good for wildlife as well.

33 It should be remembered, however, that when emphasis is placed on wildlife by such things as mass-grouping reservoirs for birds, fencing reservoirs and stream banks, and a general concern for only wildlife, then the area attains some degree of

3

United States Department of the Interior

NATIONAL PARK SERVICE
ROCKY MOUNTAIN REGIONAL OFFICE
655 Parfet Street
P.O. Box 25287
Denver, Colorado 80225

IN REPLY REFER TO:

L7619 (RMRO/PC)

APR 1 1981

Memorandum

To: District Manager, Lewistown District Office, Bureau of Land Management, Lewistown, Montana

From: Associate Regional Director, Planning and Resource Preservation, Rocky Mountain Region

Subject: Draft Environmental Impact Statement (EIS) Prairie Potholes Vegetation Allocation (DES 81/13)

The National Park Service has reviewed the subject document. It appears that the proposal will not affect any units of the National Park System.

35 Page A of Appendix 1.1 states that the National Park Service administers the Chief Joseph Battlefield in the Bureau of Land Management's Havre Resource Area. This is erroneous. The National Park Service has no administrative jurisdiction at this monument. We believe it is operated by the State of Montana.

Richard A. Strait

4a

RECEIVED
APR 14 1981 BLM
LEWISTOWN, MONTANA
FOR: ____
INT. ____ ACT. ____
INIT. ____ DATE ____

610 East Garner Avenue
Wilsonia, Montana 59861
April 13, 1981

Glen Freeman
District Manager
Bureau of Land Management
Airport Road
Lewistown, Montana 59457

Dear Mr. Freeman:

Enclosed are my comments on the Prairie Potholes Area.

In any land management plan, the sensibility of the land should
36 have prime considerations. Excessive grazing by livestock can lead to
loss of soil and water pollution. It appears that this situation
37 exists to some extent in the current management situations. Intensive
use of livestock facilities can enhance forage production for both
38 cattle and wildlife and produce soil and water. However, why must
grazing capacity be increased at this time? This goal is a common theme
39 in all but two of the alternatives.

If there was a shortage of meat in this country, then extensive
40 investment to increase cattle production could be justified. The
emphasis in management should be first on protecting the soil and water
41 and wildlife habitats. Increased forage for cattle may also result from
this emphasis.

In this regard, alternative C places too much emphasis on a single
42 economic use. Protection of riparian areas receive the least emphasis
under this alternative. Alternative B, the conferred course of action,
43 is somewhat deficient in according full protection to these areas.

It seems that protection of critical habitat is stressed in alternatives
44 A, B, and C. If this is the case, won't this action increase the risk
of noxious plants and diseases? Instead of managing monocultures, native
plants could be used to revegetate disturbed areas.

Prairie dog populations should be maintained at levels sufficient
to sustain black footed ferret colony, if these should be released.
Alternative B may be looking in this respect.

5

RECEIVED
APR 28 1981 BLM
LEWISTOWN, MONTANA
FOR: ____
INT. ____ ACT. ____
INIT. ____ DATE ____

Wallace Warburton
David Warburton
Blanche Warburton
Allotment 06035
Upper Corral Coulee
Cherry Ridge Grazing District
Blaine County, Montana

April 25, 1981

Mr. Glenn W. Freeman
District Manager
District Office BLM
Lewistown, Montana 59457

Dear District Manager:

We are submitting in writing our opinions on the use management of the Prairie Potholes area.

We think alternative B--continuation of present management system--would be the best advantage of all users concerned. We believe the Nation needs all of the resources on and under these lands, and they should be used to the best advantage within reasonable limits to maintain the best condition of the surface and vegetation and water resources as possible and still be used to good advantage for grazing, wildlife, recreation, mining, and oil & gas production.

There is also a need for firewards and roads. These could be made as one and the same character management. These roads and firewards could be very helpful in controlling range fires, which are harmful to grass and wildlife and benefit no one.

We would also like to state that the BLM land is intermingled with our land and all the users of BLM also use our land for recreation and other purposes.

Sincerely,

Wallace Warburton
David Warburton
Blanche Warburton
Wallace Warburton
David Warburton
Blanche Warburton
Box 71
Chinook, Montana 59523

4b

-2-

45 It is interesting to note that local opinion is generally against diverting land to wildlife and recreation. Many of these people do not understand the reasons behind the demands for greater emphasis of these uses on public lands. As we lose more of our land to subdivisions, roads, posting of private lands, and other restrictions to access, more pressure will be placed on public lands to protect wildlife and recreation use. This is a national trend. Local people often tend to equate resource availability only within the narrow context of their own locality and are not aware of the situation in other parts of Montana or the nation.

If local people could only begin the realize the reasons for demanding more wildlife, recreation, and wilderness, we would have a much better basis for resolving resource conflicts. Conflicts between livestock and wildlife forage allocations promise to intensify in the future.

I appreciate this opportunity to comment.

Sincerely,

Marian Denton

6

MONTANA HISTORICAL SOCIETY
HISTORIC PRESERVATION OFFICE
225 NORTH ROBERTS STREET • (406) 449-4584 • HELENA, MONTANA 59601

April 23, 1981

RECEIVED
APR 27 1981 BLM
LEWISTOWN, MONTANA
FOR: ____
INT. ____ ACT. ____
INIT. ____ DATE ____

Mr. Glenn W. Freeman
District Manager
U.S.D.I./B.L.M.
District Office
Drawer 1160
Lewistown, MT 59457

Dear Mr. Freeman:

Thank you for the opportunity to comment on the draft environmental statement for the Prairie Potholes proposed undertaking. I concur that no properties currently listed on the National Register of Historic Places will be affected. Based on my past experiences in Montana, I think more than the 50 properties you site meet the criteria for inclusion in the National Register. However, I do not have the time at this time without a comprehensive review of each property identified in the draft statement. The information for conducting such a review is not presented in the Environmental Impact Statement. Based on the information presented in your letter of April 20, 1981, I concur that the amount of inventory work done to date is sufficient enough to identify the kinds of cultural properties that are likely to exist in the area of probable impact. However, I do not believe that the information from these inventories has been evaluated and analyzed in an extent that would allow for accurate and consistently reliable estimations of the relative impacts. In order to extract such professional the information must be examined for reoccurring patterns of form and distribution in time and space within and between the classes of artifacts and sites that have been identified. Such an analysis should also include a discussion of the human behaviors that can be inferred from the patterns identified patterns as well as the reasons for the cultural and historic properties coming to be as they are found today. This is not unusual in the Environmental Impact Statement nor in the laboratory literature upon which the reasonable of impacts to cultural resources is based.

Sincerely,

Marcella Sherfy
Deputy SHPO

TAF/MS/dez

7a

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Ecological Services
Federal Building, Room 3358
316 North 26th Street
Billings, Montana 59101

IN REPLY REFER TO:
ES

May 22, 1981

Mr. Glenn W. Freeman
District Manager
Bureau of Land Management
Airport Road
Lewistown, MT 59457

Dear Mr. Freeman:

This letter follows up the meeting we had with personnel of your staff on May 14, 1981, regarding the draft Environmental Impact Statement, dated April 1, 1981, concerning the draft Grazing Management Environmental Impact Statement. Those attending the meeting from the Fish and Wildlife Service were John G. Wood and Mike Ervin; BLM representatives were Buck Damone, Lloyd Fasselman, John Sneckenberg, and Dave Little. During the meeting, many of the questions or concerns contained in our May 6 letter were answered or alleviated. At this time, we request that our May 6 letter be made part of the official record, but that you specifically address (in the FEIS) only the pertinent comments contained in this letter.

General

49 Referring back to page 1, paragraph 3 of our May 6 letter, it is now our understanding that the results of your proposed management actions, when expressed in the text as a "percentage" of "acreage", are meant as a percent of the entire EIS area. Thus, as referenced in our earlier letter, the 20 percent acreage in "good" and "excellent" range condition pertains to the entire EIS area, not to just the area covered by proposed AMPs. For the sake of clarity, this assumption should be presented early in the FEIS.

Forage Allocation and Grazing Management

50 A question was raised involving the possibility that the forage in the "good" pastures would have to be utilized in excess of 50 percent in order to absorb the AUMs of forage that were unavailable in the rest pasture. This, plus a flexibility factor in annual use of 10 to 15

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50 percent, to be determined by the permittee, gave us concern that very heavy utilization could occur in the use pastures. Thus, little or no residual cover would be left for wildlife.

During the meeting, it was explained to us that the exact allocation of forage in a rest rotation pasture system would have to be made during the development of each AMP, after the particular site was examined. However, it was also explained that the forage in the rest pasture could not be included in the forage allocations of a particular system, because the utilization of key species in any of the pastures in a rest rotation system during any given year would not be permitted to exceed 50 percent.

51 At this point, we wish to emphasize three other points that were also brought out by BLM representatives at the meeting: 1) the BLM's goal, said to be "controlling" in the EIS area, is to achieve "good" ecological range condition on 80 percent of the area covered by AMPs; 2) the progress of the AMPs towards satisfying the goal of 80 percent "good" ecological range condition will be monitored; and 3) utilization will not be permitted to exceed 50 percent in any pasture covered by an AMP. We feel that these three factors, and other explanations provided, addressed our concerns. They relate to the key determinants necessary to maintain sufficient habitat for wildlife in the AMP areas. Accordingly, we do not believe there are remaining questions on this point unless our understanding of the basis, as expressed herein, is faulty.

52 Regarding the non-AMP areas, it is now our understanding, based on the May 14 discussions, that some of the acreage in "fair" and "poor" condition is due to the blue grama-climonus vegetation association, this association is very resistant to improvement. Despite this problem, additional acreage is in such small parcels that management is extremely difficult. These problems we understand, but the concerns we expressed earlier are still valid. We remain concerned that the failure to deal with this western half of the EIS area may tend to preclude adequate management of wildlife resources in the forthcoming AMP process. In listing of selected non-AMP areas, consideration should be given to those that would favor areas of sufficient size (smaller than in the AMP areas) and those that would respond most readily to simple improvement remedies, appears to be needed. The need to develop separate plans for these areas in the AMP process should also be considered.

53 Again, our concern over range conditions on these 720,000 non-AMP acres relates to the capability of the range to support wildlife. The blue grama-climonus association is "general" in its ability to endure a long history of disturbance. It is also indicated that one of the most important to wildlife, the pronghorn and the wooded antelope brush, have also been severely abused. The general thought is that it can be argued that it would take 25-50 years of rest to rehabilitate such a range, it would take a much shorter period for the woodsy areas and riparian habitats to return to a condition capable of supplying secure cover to wildlife. We mention this fact because even if the range itself will not respond to simple treatments, such as rest or reduction of forage allocation, those other areas will response, if protected;

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55 Riparian and Wetland Habitat

Because of the importance of riparian habitat to wildlife, we feel it to be highly likely that some than 16 miles (16.6 percent) of the 128 miles of potentially "high" quality riparian habitat in the "fair" or "poor" condition needs to be protected. We recommend that the entire 128 miles be surveyed (during AMP development) and that all areas found to possess the soil and other characteristics necessary for maintenance of good quality woody habitat be fenced. We have no way of estimating the extent of such "suitable" mileage, but we feel certain it will exceed the 16 miles now projected. Without such fencing, there is no way to prevent continued or future destruction of those habitats by livestock. We agree that additional, or better, stream improvements, are getting will tend to draw some livestock pressure off the riparian habitat, but not sufficiently to prevent also degradation of much of the habitat type. Livestock will spread out over a wider area with the proposed improvements, but they will still tend to return to the streamsides for shade, rubbing, predator forage, and cooler bedding areas. We certainly support your proposal to fence at least 16 miles of this habitat, but feel that a significantly larger segment of the 128 miles likely needs such protection.;

56 Regarding management of potholes, it is our understanding now that the BLM does intend to manage some potholes for wildlife and other natural values. Those wetlands or complexes of wetlands that will be most conducive to management will become the AMP areas, as we understand it. We certainly support that, but want to reiterate our concern that the EIS may tend to set the "corner" for the AMP process. The fact that management needs are not mentioned within this document, we feel, may preclude their adequate consideration later in the land use planning process.; Some statement as to the additional potholes acreage that may be selected for special management could be included in the final EIS. We would gladly work with you in that regard, including selecting specific areas that would provide manageable units, if your process permits. In any case, we continue to feel the matter deserves further attention, though certainly within the guidelines of your planning process.

57 We also support your proposal to fence pre-set "keepout" areas below selected spring ponds whether planned for construction or existing. We would also like to suggest that some larger keepout areas be fenced, if possible, maybe up to 5 acres or such as 2-10 acres, in areas where there is demonstrably sufficient moisture to provide woody cover such as willows or buffaloberry.;

58 Wildlife and Forage Allocation

59 Discussion on May 14 alleviated many of our concerns here, but we still seriously question whether it is possible to achieve essentially a 100 percent increase in deer and antelope numbers by implementing intensive

-4-

7d

59 grazing management as outlined.; The emphasis were to manage for the maximum amount of woody cover, over the entire area, we could then agree that a 100 percent increase in deer numbers might be expected. However, woody wooded bitlide draws, now lightly used by livestock, will be used 60 less by wildlife when water developments are completed. These areas, when accessible to them, are preferred by livestock and are the reasons listed under the section on riparian habitat. These areas will be overutilized regardless of whether the surrounding range pastures is a 61 whole or is utilized at the intended 50 percent level; We believe the FEIS should address this concern in some depth.

Endangered Species and Prairie Dog Management

62 During the meeting, it was explained that BLM had examined the existing prairie dog towns on public lands in the EIS area, but did not find a complex of towns capable of supporting the black-footed ferret under the criteria we expressed. We also discussed the lack of historic sightings of the black-footed ferret. Therefore, in lieu of managing for ferrets in the EIS area, it was stated that other areas would be examined for such purposes. On the basis of our discussions, we express with your conclusions.

At this time, we do wish to point out that black-footed ferrets are not four only requirements in the context of prairie dog management. Many associated species are dependent upon or utilize these towns for portions of their life cycles. For example, researchers have recently found evidence that golden eagles having nesting territories located in or near dog towns (in the northern grass plains) have higher reproductive success than eagles not associated with dog towns. One hypothesis is that these towns provide a rodent stable prey base year after year, whereas other rodent and rabbit populations, whose numbers fluctuate more substantially, do not provide a stable food source.

Given the fact that the BLM intends to limit the size of all prairie dog towns in the AMP area to a maximum of 40 acres, we recommend that selected towns presently larger than 40 acres be managed so as to allow natural increase of the towns to 40 acres (i.e., without artificial control). Such management would lessen the impacts to various wildlife species resulting from control of the existing larger towns. Such towns could be selected with considerable care. Towns of 40 acres would presumably need to be selected with considerable care.

We are also concerned about the possible total elimination of some dog towns. In the Appendices, column 2, page A-1, item E under Wildlife, it is stated, "towns identified in habitat management plans as prairie dog towns may be completely eliminated." (The items in column 2 refer to resource objectives for Alternative A, but the same objectives are applicable to Alternative B - see page 7, paragraph 3, of the EIS.). We are generally opposed to the elimination of any dog towns in this area

7e

62 Ten public land because only 18 such towers exist. [Only in the most dire circumstances should such an action be taken. As it stands, the average of towers remaining) after the proposed control action is completed would only be 815 acres (.455 percent of the EIS area).

Summary

63 We believe the single most important aspect of the grazing proposal, upon which the wise management of the public lands covered by the EIS is dependent, is accurate monitoring after implementation. Attaining 80 percent "good" or better ecological range condition in the AMP areas is an admirable goal. However, we feel that to make this goal, it will be extremely important to closely monitor the progress of range recovery so that needed changes can be made on a site-specific basis. Without such monitoring on a regular basis, there will be no way of determining if the range condition is even in an upward or downward trend on a given tracts. Invented results may be undetected for years. We know we are quite aware of this; we urge that every effort be made to insure that the execution of the program gives the monitoring component the very highest priority.

In summary, in order to balance the various multiple-use interests in the Prairie Potholes EIS area, we feel special attention is warranted to the improvement of: 1) wooded upland habitat; 2) riparian habitat; 3) wetland habitat; and 4) there is a need to focus on the entire range of habitats in the western half of the study area where AMPs will be very limited. Adequate monitoring, after implementation, is crucial to good results for the entire program.

The cooperative attitude exhibited by your staff during our May 14 meeting is sincerely appreciated.

Sincerely,

Betty Stanton
Area Manager

cc: Director, Montana Department of Fish, Wildlife, and Parks, Helena, MT
Regional Coordinator, Montana Department of Fish, Wildlife, and Parks, Glasgow, MT
Joe Wirek, BCS, Great Falls, MT
State Director, BLM, Billings, MT
Refuge Manager, Bowdoin NWR, Malta, MT
Regional Director, USFWS, Denver, CO (ENV)

8b

Forage Allocation and Grazing Management

Page 3, Column 1, Par. 3 - We would like to see a brief tabular display and description of the various grazing systems that are proposed to be used. We appreciate the fact that there are general descriptions of grazing systems in range management handbooks; however, these descriptions are generalized in nature, and we are familiar with them. What we need to know, for example, is what are your plans for allocating forage in the rest pasture in a rest rotation system? We have seen some instances where the AUMs in the rest pasture are included as part of the annual allocations. In effect, this means that the rest pasture in a rest system will be grazed heavier to make up for the AUMs that cannot be grazed in the rest pasture. In our view, this would be a serious error to so allocate the forage in the rest pasture. Among ranchers, "rest" under a rest rotation grazing, stocking rate is based on the forage that is produced on the portion of the range that is over for one year.

In this same vein, it should be made clear whether the proposed 60 percent utilization of key species is an overall average of all the pastures in a rest system, including the rest pasture, or is it to be based only on the "use" pastures? If the former is the case, what will be the level of utilization be on just the use pasture?

As the foregoing two paragraphs indicate, there is not sufficient information in the DEIS to permit a reviewer to fully understand how the systems will be operated. We are very concerned that some of existing systems that, without clear explanations, no one reading the DEIS can grasp the implications. The EIS should spell out the assumptions inherent in the systems that will be utilized in the Prairie Potholes area.

Page 47, Table 3.13 - Under the proposed action, the table shows there will be 720,098 acres in non-AMP status. Of this acreage, 183,639 acres are in either fair or poor condition. On these acreages, it appears the existing management will continue. We do not understand why actions will not be initiated on this large amount of acreage to improve the range condition class. While some of this acreage may be in small, isolated parcels; nonetheless, reduction in AUMs is a simple management tool to improve range condition, regardless of tract size. If lack of fencing is a problem, perhaps it would be possible to prioritize the range improvement moneys in a manner which would permit fencing of the larger non-AMP tracts. To permit the range to continue to decline on these non-AMP areas seems unreasonable. This same argument is applicable to the lands to be included in AMP status. It is proposed to take seven years to implement the AMPs, thus the acreage in fair and poor condition (592,157 acres) in the proposed AMP area will continue to decline over this period. A reduction in AUMs for these acres seems appropriate.

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UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Billings Area Office
Federal Building, Room 7035
316 North 26th Street
Billings, Montana 59101

IN REPLY REFER TO:
ES

May 6, 1981

Prairie Potholes
Draft Environmental Impact Statement

Mr. Glenn W. Freeman
District Manager
Bureau of Land Management
Airport Road
Lewistown, MT 59457

Dear Mr. Freeman:

We have reviewed the Draft Prairie Potholes Environmental Impact Statement. The following constitute the comments of the U.S. Fish and Wildlife Service.

Having reviewed the DEIS, we have serious reservations about the adequacy of the document's treatment of wildlife impacts and also certain aspects of the management plan contained in the proposed action. Under this alternative, we feel, does not provide the adequate balance between management of livestock and wildlife on 2,700,000 acres of public lands. Accordingly, we are offering the following comments for your consideration.

General

A major problem in reviewing the document was the difficulty we encountered in determining whether or not the various discussions pertained to the grazing EIS area or just to the areas encompassed by the proposed AMPs. For example, on page 111, it is stated that " . . . good and excellent ecological range condition would increase by 26 percent and . . . acreage in poor and fair range condition would decrease by 43 percent. We are assuming that these percentage figures are for the AMP area only. Because present management will be continued on the non-AMP areas. Is this assumption correct? There are many similar statements made throughout the DEIS that could be interpreted as applying to the whole EIS area or just to the proposed AMP areas.

8c

Riparian, Wetland, and Wooded Habitat

The BLM's final guidelines for implementing Executive Order 11990 - Protection of Wetlands - were published in the Federal Register (Volume 45, No. 35, February 5, 1980). On page 7880 of this document it is stated, "Riparian areas which presently or potentially support broad-leaf vegetation in arid and semi-arid ecosystems are of special management concern." One of the objectives set forth in this policy is to: "Implement a management system to protect, maintain, and enhance all wetland-riparian areas administered by BLM." On page 7883 of this same document, under grazing management, it states, "Management will be adjusted to provide for recovery of riparian habitat to a Class II or greater level along streamflows or impoundments (1/2 mile on some systems) rated in Class III or IV." (II, III, and IV respectively are good, fair, and poor)

According to the DEIS, there are 180 miles of major riparian zones on public lands in the Prairie Potholes EIS area. Of this mileage, 68 miles (38 percent) are in good or excellent condition, and 108 miles (60 percent) are classed as fair or poor. Under the proposed action, 16 miles of riparian habitat will be fenced, resulting in 74 miles (40 percent) of habitat in excellent or good condition, but 112 miles (60 percent) would remain in unsatisfactory condition. It does not appear that this proposed management action satisfies the BLM guidelines outlined in the preceding paragraph. We support your action to fence 16 miles of this type habitat, but we feel that much more emphasis should be placed upon management of this very important wildlife habitat.

Although there are about 3,500 potholes, totaling 18,230 acres, in the EIS area, we understand that only a few hundred acres of wetland-type habitat will be spared because potholes, with no sump potholes present, we understand that it is impossible to specifically manage all of them. However, if there are some of sufficient size and of particular value to wildlife, why couldn't these few be actively managed for wildlife purposes? It does not seem to us that so significant a resource should be ignored.

Wildlife and Forage Allocation

Page 47, Column 2, Par. 5 - Here it is stated that a 100 percent increase in deer and antelope numbers is expected due to grazing treatments (increased forage) and range developments. We are not aware that such an increase is possible under intensive grazing management. Rather, it appears that overall numbers would probably remain stable or decline somewhat. Proposed water developments (400 new reservoirs) will permit more uniform grazing with livestock utilizing areas formerly inaccessible only to wildlife. Livestock will be competitive with wildlife over a greater area than was previously possible. The impact will be magnified to a much higher degree if it is proposed that the "rest" pasture

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ALM's are distributed throughout the "use" pastures in any given year. Aside from antelope and deer, such management would be especially detrimental to sharp-tailed grouse.

Endangered Species

Section 2, paragraph (c) of the Endangered Species Act states, "It is further declared to be the policy of Congress that all Federal departments or agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this Act."

In our November 20, 1980, letter to the District Manager, BLM, Lewistown, regarding the black-footed ferret, we suggested, "...that you evaluate an area both with regard to the presence of ferrets or their sign, the capability of that town or complex of towns to support a ferret population, other resource considerations, and then make a decision on the need for control or the extent of control needed to achieve the management objective."

While reviewing the DEIS, we were unable to find any indication that BLM considered the capability of any given town or complex of towns to support a ferret population. Hillman et al. (1979) found that prairie dog towns in their study area were not randomly distributed, but, instead, clumped in a few areas. Our proposed management recommendations were to maintain a minimum of eight preferred dog towns per township. These eight towns, at least two should exceed 100 acres, the remainder at least 30 acres each. At present, this is the best management information available.

We wish to reiterate again what we said in our letter of November 20, 1980. ALM's range of alternatives for prairie dog control appears limited. Management alternatives in the DEIS call for either 0, 616, 1715 (existing situation) or 238,000 acres of prairie dog towns. Furthermore, under the proposed alternative, no town would be permitted to exceed 40 acres in size (see page 86, column 1, par. 4, and refer back to page 93, column 2, par. 5). What were BLM's objectives in limiting the overall acreage to 616 acres (less than four hundredths of one percent of the planning area) and the size of individual towns to less than 40 acres? As we see it, the chosen alternative in this respect does not adequately consider recovery of the black-footed ferret. Certainly, there is a more realistic "middle of the road" approach, somewhere between 0 acres and 238,000 acres, which could be taken to provide sufficient dog town acreage for possible recovery of the ferret in this area.

-6-

8f

Literature Cited

1. Hillman, C., R. Linder, and R. Dahlgren. 1979. Prairie dog distribution in areas inhabited by black-footed ferrets. Amer. Mid. Nat. 102(1):185-187.

2. Hormay, A.L. 1970. Principles of rest-rotation grazing and multiple-use land management. USDI, BLM; USDA, USFS. U.S. Govt. Print. Office. 55 pp.

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Conclusions

We find that we are unable to support the recommended plan for the reasons outlined in this letter. We believe there are solutions that would provide a better mix of objectives so that the interests of the public, including the livestock industry and competing needs, could both be met.

Perhaps it would be beneficial if our representative could meet with district and/or state personnel of the BLM to further discuss our concerns and alternatives for alleviating these concerns. In this regard, informal contacts for the Fish and Wildlife Service in the Billings Area Office are either Gary West or Mike Lewis (FTS 588-8789; Comm. 657-6780).

Sincerely,

John E. Wood
Acting Area Manager

cc: Director, Montana Department of Fish, Wildlife, and Parks, Helena, MT
Regional Coordinator, Montana Department of Fish, Wildlife, and Parks, Glasgow, MT
State Director, BLM, Billings, MT
Refuge Manager, Bowdoin NWR, Malta, MT
Regional Director, USFWS, Denver, CO (ENV)
Joe Urvak, SCS, Great Falls, MT

-8-

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MONTANA PUBLIC LANDS COUNCIL
Old Post Regional Warehouse (Annex)
2915 2nd Avenue N. - 305 Fort Bldg.
Billings, Montana 59101
(406) 248-2036

May 7, 1981

To: Glen Freeman
District Manager
Bureau of Land Management
Airport Road
Lewistown, Montana 59457

From: G. E. Hitch
Montana Public Lands Council
305 Fort Building
Billings, Montana 59101

Re: Comments on Prairie Dog Role EIS

RECEIVED
MAY 8 1981 BLM
LEWISTOWN, MONTANA

Upon looking over my notes, the resulting comments tend to look like one of the "good news and bad news" stories that were popular a short time ago.

The best of the good news comments must be the amazing effort and the carry through in this document. The mail scoping showed better than any other such effort that I believe to be generally true. The large share of the people with interest in an area live in that area. About 80% of the answers came from that area. Almost all of those from outside the area were representational - people like myself who consider it part of a job to answer. It illustrated better than any other effort I've seen that the people living in an area, communities or counties have the major interest in that area. This has often been expressed by organizations representing groups who have to use the so-called "public input process." This has often been as well done that local interests have felt bypassed and utterly frustrated. It would not seem so here.

I would also like to compliment the people involved in the use of these mapping answers. Alternative 5 recognizes a basic thought no often stated in this type of study - that there have been a lot of problems faced and some solved before this effort started. On this I find one of my sad news items. Page 7 second paragraph mentions that people wanted things left "as they are." The reason behind this was not mentioned. Most people in the area did not figure there were large overriding problems to be faced; historically past efforts have achieved a definite stability in the management of our resources in this area. You in the BLM have more than "professional judgement and surveys" (page 5, 2nd paragraph, chapter 1). You have been part of this stability under Taylor Grazing, and you have personnel that have very definite knowledge of this stability and how it came about. You seemed ashamed to say so. There are very few that

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9b

Glen Freeman
May 7, 1981
Page 3

65 figure say ultimate has been reached, high recognition of past efforts to needed and could be better stated in this RIP.

The use of Alternate B as the preferred alternative is to be commended.

I would also like to commend those responsible for the wheatgrass forms. Certainly most past efforts dealt with a great deal of money that did little to promote management. In some of these deals the land proved to be a hindrance to development of good management. Some other alternatives were reached. The allotment overlays are good and allow much better use of the maps. The separation of the best opportunities also allowed much easier cross reference than when they are in the same volume.

In general the writing is readable and reasonably well presented. I like the summaries (Chapter 1) presented before each alternative. For those not so familiar with the alternatives, a short statement of the alternative there would save referring to chapter 2.

There is a part of this RIS that I do question. All the way through there is no question that would lead one to believe there is a tremendous wildlife area. This is shown best in the illustrations. I count 2 that could be called recreational, 37 of game animals, and 5 of campsite animals. This is a sharp contrast to the 3 (2 cows and 1 sheep) illustrations on the grazing industry that furnishes a large share of the income of the area and is the reason for the RIS.

66 The contrast is even worse when I note 2 illustrations on elk and 2 cows. There is one herd of elk (page 53 and page 79) that spend 2/3 of their time on private land and another of 500 elk/season for cattle use. There are 2 herds of bighorn sheep, one of which used to be found in grain fields, lawlands and deer water. Thus the sheep problem is being dealt. This gives an impression which is questionable in this area. I know that it is a problem to recognize the many species of wildlife, especially those species that need protection and in some of these seem to be given an undue emphasis and others present a view that is a bit skewed.

67 The worst of these is, as usual, the prairie dog. On page 55 we again see the dependence of large numbers of wildlife (30 species) on the prairie dog. Most of these including the burrowing owl can be seen a long way from prairie dogs also. Let's be honest that other wildlife in a prairie dog town either eat prairie dogs, like bare ground, or were just on their way through. Critical dependence on the prairie dog habitat by a large number of species is questionable.

68 Also on pages 55 and 56 we see that they "may seriously reduce the forage available to livestock." This reduced forage is provided as all forage users, ranchers. It is also seriously reduced for wild game protection and is missing for those wildlife that need it for cover. Again on a well worn subject (page 75) we see quotes that the little animals really only live where the range is overgrazed by livestock. Those who have watched their spread testify otherwise.

9d

Glen Freeman
May 7, 1981
Page 4

76 being a beautiful rough fescue area. I doubt if you can find even one plant in the genus of that species. From what I know of this state, there will also be a real difference in a lot of species present.

A potentially serious problem seems to be left on page 4 under monitoring. The terminology in the second paragraph calls for "each pasture" and twice for "annual studies." I have real problems with this as annual studies may not be needed to adequately monitor. Even more important is the time needed to construct such follows up. You have real good possibility that time may not be available over the years. I would think a definite priority system would more nearly fit the coming years. Much ANP may or may not need "annual" monitoring. Certainly there is need to monitor change. The commitment of this paragraph to monitor could be much more than needed or available.

77 There is a term used on Page 26 that is questionable. The definition of "fragile soil" is almost as loose and poor as the old term "frail soil." They both mean many things to many people and, as a consequence, mean very little.

78 I have a problem with your proposed prairie dog management. There is a commitment that there is need to maintain prairie dogs in this area without any mention that the adjoining area (Missouri Breaks) has large population. I'm sure the dogs don't know when they cross from one zone to another. It would seem there are, and district-wide decisions to be made, and this document ignores it.

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80

81 This was not the way you handled the Wild and Scenic River (Page 57) as you seem to include it in your area. If I remember the Missouri Breaks statement it went up the river until it was about out of "public land." Your part of that river would be largely privately owned. But maybe you didn't know since on page 58 you state the river for the southern boundary of the Prairie - Fort Bale. Since the Breaks work up to almost the mouth of Eagle Creek, it doesn't leave you much but the Virgelle, Loma and Fort Benton stretch.

I still feel the best illustration is on Page 59 - and I can hardly wait to try a canoe trip in the Bitter Creek Wilderness Area.

Thanks for the opportunity to comment.

Willis

cc: BLM State Director - Billings
Advisory Council
Grazing Districts - Helena
Glasgow
Malta
Chinook

9c

Glen Freeman
May 7, 1981
Page 3

68 In our short and mid-grasses they have no big trouble establishing themselves. The last phase I noted this was on the Remuda protected colony near Hardpoint. They have spread to key fields and are having no problem spreading onto the ungrazed highest sight-of-way.

69 You comment (page 55) on the importance of insects without noting the damage they can do in some years.

70 You comment on the great sagebrush area (page 53) without noting a well-known trouble they have in bed years. A bad winter doesn't just move Canadian sagebrush into the area. It seems to kill sagebrush out of the area. There years ago a large bend and sagebrush area were identified by FW & P people as "Canadian" bed and mistaken often put large herds on the private lands along the Missouri River. Losses due to traffic, railroad, and highway died are substantial. This area of winter habitat has been common with bad winters for a long time and furnishes a lie on the population. I find no mention of it here.

71 The wildlife people make much of conflicts. On Page 51 there is mention of conflict in brown elk antlers. There is no mention of a few years ago when deer numbers were up that there was conflict in one elk winter at the keystone. There conflicts will occur any time there is low production, high numbers, or both; and it won't make any difference which numbers are high. It is not a one-way street.

72 I would like to commend the term on the riparian classification (pages 37 - 40). It would seem to have much more use than the purely wooded species classification proposed by others. It probably will need revision but looks much better as a management tool. One exception is on page 39 as "characteristic vegetation" has no grass or forbs.

73 There is a lack of emphasis on the mixed ownership common to the area. Page 47 shows one ANP with only 9.5% other included lands. This is a serious error as most other areas were not added into this figure. Most of these are mentioned twice in the middle of the private holdings. It should be footnoted so it gives a real wrong impression.

74 Another place this should be noted is in the discussion on wells (page 50). I assume there are just HLM wells, but it doesn't say. There are a lot of private wells that water HLM ground also. It needs to be noted to give the overall picture.

75 Another area where the mixed ownership plays an important part is in the potential ANPs mentioned on Pages 3, 7, 48 and other areas. The inclusion of nearly 40% other land adds to the lack of cooperative planning and agreement. I failed to find this mentioned in the write-up, but it must have been considered and the additional time required one of the reasons for putting many into the potential class.

76 This present a real problem on Page 53 when you compare the forage of the Missouri Breaks to the Sweet Grass Hills. The latter have long been known for

10

Diamond Willow Ranch
Willis

Rural Route Box 48
Malta, Montana 59538

Phone
(406) 654-2817

RECEIVED
JUN 1 2 1981
LEWISTOWN, MONTANA

Mr. Glen M. Freeman,

Dear Glen:

I like to make a few comments concerning my allotment in regards to the B.L.M. environmental impact statement. Page 4-15 " 3588 "Bullhead Coulee"

82 First the map as shown is the worse given one we have ever seen correct. Second the n.a.p.i. as stated does not take into consideration the amount of range abusing that has been done on this land we have at this set consideration the allotment resembles without anything that has been done. I would believe that a much larger n.a.p. energy capacity be considered.

83 Below on page 4-16 under the heading "Grazing guide" the indicating minimum is to follow the recommendations of Ryerson." (1970) be described above." would this in our mind, if what Ryerson has said this heading, it's what has to turn up to look at some animal there, it he can not be curried, but never above. I am sure that his findings in studying is the actual reason on this place are a tremendous difference. Hoping to hear from you I remain Sincerely Willis Dull

11

MONTANA STOCKGROWERS ASSOCIATION, INC.

P. O. BOX 1679 – 420 NO. CALIFORNIA ST. – PHONE (406) 442-3420 – HELENA, MONTANA 59601

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T. EDW.

May 12, 1981

RECEIVED
MAY 13 1981
Lewistown, Montana

Glenn Freeman
District Manager
Bureau of Land Management
Airport Road
Lewistown, MT 59457

Dear Mr. Freeman:

I have now had an opportunity to review the Prairie Pot Hole Draft Environmental Impact Statement and find it far superior to most other EIS's which I have reviewed. You are to be commended for its brevity. The sampling effort which you conducted by mail was an innovation and proved to be to give you a better feel for what the people out on the land were concerned about than the other arrangement of calling group meetings.

Chuck Nixon, of the Musgrove Public Lands Council Range Monitoring Project, with whom we work closely, has provided me with a copy of his comments of May 7 on this EIS. I have studied Chuck's comments and find that he has made an excellent analysis of the document and would ask that you place our association on record as supporting the positions set forth by Mr. Nixon.

84 We have no quarrel with the 3 Alternative as the one preferred. I cannot emphasize strongly enough the comment Mr. Nixon makes at the bottom of his third paragraph pertaining to the BLM's positive efforts in working with the people in the area, thus minimizing potential problems. The ability of your personnel to work with stockmen and the state grazing districts has resulted in a much more stable livestock industry than would have been possible otherwise.

Sincerely yours,

Wm. L. Pratt

WLP:MCC

Wm. L. Pratt
Executive Vice President

SERVING MONTANA'S CATTLE INDUSTRY SINCE 1884

13

Glenn Freeman
Dist. Manager
BLM Lewistown, MT

May 15, 1981

RECEIVED
MAY 20 1981
Lewistown, Montana

Dear Glenn,

Although I meant to late at the E.I.S. meeting in Chinook to comment on the Prairie Pot Hole Draft E.I.S., I will take the opportunity to do so.

First of all, I think this draft EIS is the best one I have observed, and would like to commend you on your joint efforts to get "grass roots" in put on what the grass and was should be for the forage derived from the public lands.

88 The "C" alternative gives us the latitude to go ahead with badly needed range improvements of the public lands, or lets get started and get the job done!

In the process of implementing these range improvements, I don't think a one man employee the expertise of a well lifted travel overhauled, organized planning. I seriously feel of the BLM, permittee, state grazing districts and conservation districts make a joint effort. Thereby we will, organized planning can all assess affecting the public grazing lands, a cooperative relationship will prevail, and all will benefit.

Sincerely,

Donald L. Frank
RR 1 Box 15
Chinook, Mt 59523

12

United States Department of Agriculture
Soil Conservation Service
P.O. Box 970
Bozeman, MT 59715

May 18, 1981

Glen W. Freeman, District Manager
District Office, BLM
Airport Road
Lewistown, MT 59457

Dear Mr. Freeman:

The following comments are offered for the Draft Environmental Impact Statement on the vegetation allocation in the Prairie Pot Holes area of Montana, prepared by your agency.

85 1. Alternative B - Continuation of Present Management

This alternative appears to be the more suitable of the alternatives from the standpoint of acceptance, manpower, money and management. There is a sizeable amount of acreage in Alternative B that will not have an AUM allotment. These are somewhat scattered tracts, but should have the same attention for good range management as the AUM allotments. It will behoove the BLM and SCS to work together so these non-AUM allotments will at least have a good conservation plan.

86 2. There doesn't appear to be any provision for erosion control during construction on BLM projects.

87 3. Improvement projects that benefit both BLM and private lands such as pipelines, etc., are not adequately covered or discussed.

Sincerely,

Wesley Hoderlie
State Conservationist

RECEIVED
MAY 15 1981
LEWISTOWN, MONTANA

cc:
Charles F. Lemon, Director, TSC, SCS, Portland, OR
Norman Berg, Chief, SCS, USDA, Washington, DC

The Soil Conservation Service is an agency of the Department of Agriculture

SCS-NCS-1
10-79

14a

DEPARTMENT OF STATE LANDS

TED SCHWINDEN, GOVERNOR
CAPITOL STATION

STATE OF MONTANA

DIRECTOR'S OFFICE
LICENSED BROKER/APPRAISER DIVISION

RESEARCH DIVISION REVENUE
HELENA, MONTANA 59620

RECEIVED
MAY 18 1981 BLM
AGRICULTURAL MONTANA

May 15, 1981

Glenn W. Freeman, District Manager
District Office, B.L.M.
Airport Road
Lewistown, MT 59457

Dear Mr. Freeman:

We wish to thank the Bureau of Land Management for the opportunity to express our comments on the Prairie Potholes Vegetation Allocation Draft (E.I.S.).

We are in favor of Alternative B, which is the continuation of present management. Our lessee's involved in the 70 targeted allotment management plans, have indicated that they favor this lease management program. This alternative addresses multiple use management by allocating the vegetation to livestock, wildlife, and non-consumptive uses in a most prudent manner.

89 During the revision and implementation of the 93 existing and 70 proposed allotment management plans, we plan to review each (AMP), with particular interest on the animal unit month (AUM) allocations on state trust lands. Our objective in administering these trust lands is to manage in a manner conducive to a sustained yield for the support and maintenance of the public school system, (school trust), without prohibiting multiple use management. Our stocking rates are not according to range conditions, trends, and vigor with consideration given to water availability.

90 Under the "General Impacts" section of the E.I.S., it was stated that in the long term there would be no additional residual cover for shore nesting waterfowl along shorelines of "ground" potholes and reservoirs. Since this region is the nations largest duck producing area (duck factory), priority should be given to residual cover on "key" nesting reservoirs and potholes. This is an extremely important variable in the breeding success of the "diving ducks". The "dabbling ducks" are more successful with grass, prairie sites. Several viable solutions to meet the needs of both livestock and waterfowl, would be fencing in waterguns for the cattle, or deferring these "key" reservoirs until the waterfowl broods have hatched.

AN EQUAL OPPORTUNITY EMPLOYER

14b

Glenn W. Freeman
May 15, 1981
Page Two

91 The F.I.S. states that the stocking rates recommended by the SCS guides are usually higher, so that there is a greater amount of proper use forage available than currently allocated by the B.L.M. We have been using their guides as a basis for setting stocking rates on state trust lands, and have found them to be conservative rather than inflated in recommending proper use forage. Decreasers are given full credit, but introduced species like: Timothy, Kentucky Bluegrass, and Smooth Brome are given no credit when figuring the condition class for a particular tract of land. The introduced species mentioned above are readily eaten by livestock as valued forage. So what if least of least has 30 percent of these species, and you are not allowed to claim them, it has a tendency to give much lower carrying capacities than what is actually there.

We anticipate working together in this region to protect and improve Montana's rangeland resources.

Sincerely,

Rand Lorenzen

Rand Lorenzen
Land Use Specialist
Land Administration Division

Wilbur Irwin

Wilbur Irwin
Administrator
Land Administration Division

RL/WI/sk

15b

page 2

97 points out that livestock stress would increase due to more moving of livestock in the 93 revised AUMs. When one interprets what BLM means, it becomes apparent that BLM intends to revise the existing AUMs from perceived benefit to wildlife; making it mandatory to proportionately move cattle from pasture to pasture as forage dwindles, thereby stressing the cattle more. If BLM wildlife experts think much moving of livestock and the accompanying increased stress to be beneficial to either the range resources or wildlife, their opinion is not shared by experts such as Guy Dorsey, whose handbook on rest rotation systems calls for flexibility of management and widely spacing pastes from one pasture to another at the proper time allowing cattle a choice of pastures with a minimum stress on either cattle or cowboys. This blanket revision of all existing AUMs seems like another expensive exercise of unsubstantially formulated systems and should not be done across the board unless there is a bonafide need for changes. The wildlife habitat is generally very good over the area. Wildlife will benefit along with livestock in the future to be expected from existing and future rest rotation AUMs. Furthermore, all present AUMs have as an objective, improvement, under existing formulas, of wildlife habitat and forage.

96 (2) Fencing some 16 miles of creek channel some 200 feet wide would be a costly project and would result in minimal benefits with a maintenance problem that would be a nightmare.

97 (3) Grazing capacities should remain at the present level unless future changes in capacities cause would indicate an increase or decrease in capacity. The capacities presently in use are a result of many years of actual grazing experience and generally should remain at that level.

98 (4) We do not believe that the public lands are in such need of
99 improvements as to require the $1.4 million expenditure that is estimated in Alternative "B". We do agree, however, that missing wood and barbed wire
100 dogs should be controlled. Wildlife money should be spent in the interest of wildlife use rather than wasted for wildlife enhancement.

(5) There should be more economy in the administration of public lands. Future management of BLM lands should take into account input and advice from local interested publics. This would insure favorable social response to BLM's progress in the 1980's. An administrative money saver for BLM would be to make full use of the state grazing district setup.

(6) The section on "Visual Resources" shows that the area is not a high recreation area and "eye pleasing" is relatively of lesser importance. This leaves the major use as being utilization by livestock and wildlife, and an expensive list generally and basically what is good for livestock is good for wildlife. However, the converse is not necessarily true. Over emphasis on wildlife can be very detrimental to livestock.

We do endorse the concept of Alternative "B" with these exceptions and observations noted above. We respectfully urge that the plan be modified to incorporate our thoughts and that it be adopted in that form.

Respectfully Submitted,

Walt Logan — President

Smith Valley — State Grazing District

15a

North Valley Cooperative State Grazing District
Box 482
Glasgow, Montana 59230

May 14, 1981

Glen W. Freeman
District Manager
BLM Office, Airport Road
Lewistown, MT 59457

RE: PRAIRIE POTHOLE EIS

92 The Montana Cooperative State Grazing Districts are proud and protective of the lands they administer, including the federal lands encompassed within their boundaries. Although we are now in a very serious drought, the land resources has been well cared for by the Grazing Districts and their permittees as indicated by the high percentage of lands rated "good" condition and the small percentage of lands rated "poor" condition as shown in the tables of Prairie Pothole EIS. We do not believe that a rating of "Excellent" is a realistic goal because as it would be impossible to achieve "Excellent" condition. Although it is a laudable goal of "Excellent" is practically unattainable, you will note that under the No Grazing Alternative 5, by the year 2000, there would only be about 7,000 acres in the prairie potholes area in fresh this status. Less than 10 of the total land area involved. While we would all like to be perfectionists, those of us who have our own livestock enterprises, and are spending our own money to support thereof, most of necessity be, and certainly the government administering agencies should be, limited by realism to what are realistic changes and affordable expenditures.

93 We wholeheartedly support and promote the multiple use concept by not only federal and state lands, but on our private lands as well, and it must be recognized by BLM or other agencies that the majority of wildlife sustenance is provided by the private lands in the Prairie Pothole EIS area. Two basic facts are responsible for the destruction of wildlife: (1) the majority of the lands is in private ownership (70% of the total area or 1,000,000 acres) and (2) the lands are in private ownership because of inaccessibility, or primarily marshy, (3) the private lands are generally better quality and much more productive lands than the public lands, thereby attracting wildlife of all kinds in far greater numbers than their proportionate share. This livestock, wildlife trade-off is not a one way street and certainly should be considered in land management policy decisions. We deplore BLM attitudes of wildlife superiority over livestock on public lands. We have seen BLM wildlife biologists crossing in one of the ones that is paying its way on public lands. Since several wildlife is introduced in the EIS statement by the ratio of wildlife pictures to livestock pictures (2% to 4). Again, we support multiple use, but only true multiple use, not pro-wildlife.

94

95 We support Alternative "B" (continuation of present management) with some modifications. Those specific points of disagreement are as follows:

(1) As noted before, it is apparent that this document is pro-wildlife and anti-active towards livestock production. This becomes even more evident when one notes that the draft EIS calls for the revision of all 93 existing AUMs (1st paragraph Summary page 93) and then on page

16a

hinsdale livestock company
pa box 429 glasgow, montana 59230
(406) 228-2835 or 228-9101

May 15, 1981

Glen W. Freeman
District Manager
Drawer 1160
Lewistown, MT 59457

Dear Glenz

The purpose of this letter is to comment on the draft EIS for the Prairie Pothole Area. I did make a number of brief comments the hearing held in Glasgow on April 22, 1981. However, because I had not really understood the format of the hearing, I was not prepared to comment fully at that time. These written comments will expand on the list of the oral remarks I made on April 22.

First of all, let me say that BLM is deserving of commendation and credit in the development of this draft for a couple of reasons. It is much briefer and easier to understand than previous productions and secondly, the decision to add Alternative B because of public input earlier in the process. As a general management policy, BLM cannot go wrong in seeking and heeding local advice concerning the use of the public lands. In spite of the brevity of the draft, I will have to confess that I haven't had time to read all sections and have relied on the summaries for my information. Mr. Lance Reid Cross Ranch's letter of comment for the Montana Public Lands Council is a good one. Lance has to go from the Valley County State Grazing District to 4 counties then pretty much totally, but would like to report, perhaps for emphasis, many of the points that have already been made.

101 The draft EIS seems pretty heavily wildlife orientated and recommendations for action seem intended to benefit wildlife primarily. This is unfortunate in a sense because the area is presently in very good shape as a wildlife haven. Private lands provide the major part of the habitat and especially the critical habitat, such as winter range for deer and antelope. Hay and grain fields provide cover and forage for pheasant and upland birds plus excellent riparian habitat on stream bank adjacent to hay meadows, etc. The wildlife habitat picture could be improved in its entirety, but just the public lands portion of it, if that pertains and A.U.P. allotment areas have substantial percentages of privately owned and controlled lands and private owners must be consulted in actions which will affect their livelihood and ranch operations. Livestock raising is, of necessity, a year round operation. Any changes made in this operation during the
102 summer months on public lands or pastures will have the effect of necessarily causing a change in use of private lands in conjunction. These changes may not necessarily be beneficial to the over all wildlife well being and

gene etchart john etchart joe etchart

16b

habitat pattern. Mike Penfold, at the recently held Lewistown Advisory Board hearing here in Glasgow, when speaking to the board, mentioned he had seen plenty of wildlife in this area in a healthy condition, and this during a period of drought. In our existing operation we weaken the "good" condition by grazing, and we strengthen the "poor" condition by support. We have hunters who, every year, come from places as far away as Scottsbluff and Reno and report conditions here are superior to any they encounter in other locations. We think this is testimonial to a multiple use management system in place for say years which is working and should not be tampered with, unless adequate reasons exist.

For the reasons just mentioned, I would recommend against the blanket revision of the 95 existing A.U.P.'s as suggested in the draft EIS.

104 103

The leasing of a narrow band of creek channels for a total of 46 miles is not impressive.[1] There are best wildlife habitats found in order to maintain because every time the creeks run, you lose the watergrass. Such a program would be at the very best, a tough enforcement problem and, at worst, a barbed wire entanglement reminiscent of previous such wildlife enclosure ideas. There are very much examples of the management of more rest rotation systems, as suggested by the state grazing districts, would be a better idea.

The correct letter from the state grazing districts mentions the EIS calling for revisions of all 95 existing A.U.P.'s for the benefit of wildlife and that additional stress would be put on cattle due to more severity. It is my comment that by and large, the existing A.U.P.'s should be O.K. as is. Some may be too small or for some other reason unworkable and in need of some revisions, all of them were written with specific goals of improving the wildlife habitat as well as other multiple use values. Thereafter booklet on rest rotation points out that the gains can simply be passed to recreation users in rest rotation systems and the range will improve. The A.U.P. system was fostered by SCS and promoted as a plan providing more flexibility. It has resulted rather widespread acceptance after a stormy start. For SC. to go back now and change agreed upon operational principles would result in much discord.

105

The "publics" comment earlier was that the system was working pretty much as is. I agree and while improvements can certainly be made, no radical changes are necessary. Working rates have pretty well stabilized following several "adjustment years" under state and federal law and should be continued as alternative 2 suggests.

By closing comment would be to simply again endorse the statements of Chuck Hilton and the Valley County State Grazing Districts.

Sincerely,

Gene Stewart

17b

99 points out that livestock stress would increase due to more roaming of livestock in the 95 reviewed A.Pts. When one interprets what SC.[1] means, it becomes apparent that SC. intends to revise the existing A.Pts (for perceived benefit to wildlife) making it mandatory to physically move cattle from pasture to pasture on given dates, thereby increasing the cattle move. If SC. wildlife experts think such moving of livestock and the accompanying increased stress to be beneficial to either the range resource or wildlife, their opinion is not shared by experts such as Don Ramsay, where handbook on rest rotation systems calls for flexibility of management and simply opening cattle from one pasture to another at the proper time allowing cattle to graze themselves with a minimum of stress on other cattle or newness. This blanket revision of all existing A.Pts. is not necessary, and should not be done. Rest rotation carefully formulated systems and should not be done because of a few acres in a benefits need for changes. The wildlife habitat is generally very good over the area. Wildlife habitat benefits along with livestock results to be expected from existing and future rest rotation A.Pts. Furthermore, all present A.Pts have an objective, improvement, under existing formulas, of wildlife habitat and range.

(2) Fencing some 46 miles of creek channel some 200 feet wide would be a costly project and would result in original benefits with a maintenance problem that would be a nightmare.

(3) Grazing competition should remain at the present level unless future changes in specific areas would indicate an increase or decrease in capacity. The competition currently in use are a result of many years of actual range experience and generally should remain at that level.

(4) We do not believe that the public lands are in such need of improvements as to require a $1.4 million expenditure which is contained in Alternative "D". We do agree, however, that certain needs in range improvements are justified. Priorities of range should be based on the interest of multiple use rather than solely for wildlife enhancement.

(5) There should be more economy in the administration of public lands. Future management of SC. lands result into extra manual input and advice from local interested publics. This would insure favorable social response to SC.'s program in the 1980's. In administrative money saver for SC. would be to make full use of the state grazing district network.

(6) The section on "Visual Resources" shows that the area is not a high recreation area and "eye pleasure" is relatively of lesser importance. This leaves the major uses as being utilization by livestock and wildlife, and we emphasize that generally not basically what is good livestock is good for wildlife. However, the converse is not necessarily true. Your emphasis on wildlife can be very detrimental to livestock.

We do endorse the concept of Alternative "D" with these exceptions and observations noted above. We respectfully urge that it be modified to incorporate our thoughts and that it be adopted that far.

Respectfully Submitted,

President

State Grazing District

17a

BUGGY CREEK COOPERATIVE STATE GRAZING DISTRICT
Glasgow, Montana 59230

May 19, 1981

RECEIVED
MAY 22 1981
BLM
LEWISTOWN, MONTANA
ADMINISTRATIVE OFFICE

Glen W. Freeman
District Manager
BLM Office, Airport Road
Lewistown, MT 59457

RE: PRAIRIE POTHOLES EIS

The Montana Cooperative State Grazing Districts are proud and protective of the lands they administer, including the federal lands encompassed within their boundaries. Although we are now in a very serious drought, the land resources has been well cared for by the Grazing Districts and their permittees as indicated by the large percentage of lands rated "good" condition and the small percentage of lands rated "poor" condition as shown in the tables of Prairie Potholes EIS. We do not believe that a rating of "Excellent" is a realistic goal inasmuch as it would necessitate severe under-utilization of the forage resources. To illustrate the goal of "Excellent" is practically unattainable, you will note that under the No Grazing Alternative D, by the year 2000, there would only be some 17,000 acres in the Prairie potholes area to reach that status. Less than 5% of the total land area involved. While we would all like to be perfectionists, those of us who have our own livestock enterprises, and are spending our own money in support thereof, must of necessity be, and certainly the government administrative agencies should be, limited by realism to what are realistic changes and affordable expenditures.

We wholeheartedly support and promote the multiple use concept on not only federal and state lands, but on our private lands as well, and it must be recognized by SC. and other agencies that the majority of wildlife assistance is provided by the private lands in the Prairie Potholes EIS area. Two basic facts are responsible for the distribution of wildlife; (1) the majority of the land is in private ownership (68) of the total area of Prairie Potholes, as shown in EIS table of land ownership on page A-1 of Appendices, as privately owned, (2) the private lands are, in general, better quality and much more productive lands than the public lands, thereby attracting wildlife of all kinds in far greater numbers than their proportionate share. This livestock, wildlife increase-off is not a one way street and certainly should be considered in land management policy decisions. We deplore the attitudes of wildlife superiority over livestock use of public lands. It should be remembered that livestock grazing is one of the uses that is paying the way on public lands. Same wildlife benefits are illustrated in the EIS statement by the ratio of wildlife pastures to livestock pastures (26 to 4). Again, we support multiple use, but only true multiple use, not pro-wildlife.

We support Alternative "D" (continuation of present management) with some modifications. These specific points of disagreement are as follows:

(1) As noted before, it is apparent that this document is pro-wildlife and negative towards livestock production. This bias is even more evident when one notes that the draft EIS calls for the revision of all 95 existing AUMs (1st paragraph Summary page 93) and then on page

18a

Buggy Creek Cooperative State Grazing District
Box 1
Glasgow, Montana 59230

May 19, 1981

RECEIVED
MAY 22 1981
BLM
LEWISTOWN, MONTANA
ADMINISTRATIVE OFFICE

Glen W. Freeman
District Manager
BLM Office, Airport Road
Lewistown, MT 59457

RE: PRAIRIE POTHOLES EIS

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18b

page 2

97 points out that livestock stress would increase due to more moving of livestock in the 93 revised AUMs. When one interprets what BLM means, it becomes apparent that BLM intends to revise the existing AUMs (for perceived benefit to wildlife) making it mandatory to physically move cattle from pasture to pasture on given dates, thereby stressing the cattle more. If BLM wildlife experts think such moving of livestock and the accompanying increased stress to be beneficial to either the range resource or wildlife, their opinion is not shared by experts such as Don Horney, whose handbook on rest rotation systems calls for flexibility of management and avoiding grazing cattle from one pasture to another at the proper time allowing cattle to move themselves with a minimum of stress on either cattle or rangeland. This approach provides a wide range of existing AUM season like needless expensive tampering of scientifically formulated systems and should not be done because the board unless there is a bonafide need for changes. The wildlife habitat is generally very good over the area. Wildlife will benefit along with livestock in the end results to be expected from existing and future rest rotation AUMs. Furthermore, all present AUM have an an objective, improvement, under existing formulae, of wildlife habitat and forage.

(2) Fencing some 16 miles of creek channel some 200 feet wide would be a costly project and would result in minimal benefits with a maintenance problem that would be a nightmare.

(3) Grazing competition should remain at the present level unless future changes in specific areas would indicate an increase or decrease in capacity. The competition presently in use are a result of many years of actual grazing experience and generally should remain at that level.

(4) We do not believe that the public lands are in such need of improvements as to require the BLM million expenditure that is estimated in Alternative "B". We do agree, however, that noxious weeds and prairie dogs should be controlled. Wildlife range should be spent in the interest of multiple use rather than solely for wildlife enhancement.

(5) There should be more economy in the administration of public lands. Future management of BLM lands should take into account input and advice from local interested public. This would insure favorable social response to BLM's program in the 1980's. An administrative money saver for BLM would be to make full use of the state grazing district set-up.

(6) The section on "Visual Resources" shows that the area is not a high recreation area and "eye pleasure" is relatively of lesser importance. This leaves the major use as being utilization by livestock and wildlife, and we emphasize that grazing and multiple use is good for livestock is good for wildlife. However, the converse is not necessarily true. Over emphasis on wildlife can be very detrimental to livestock.

We do endorse the concept of Alternative "B" with those exceptions and observations noted above. We respectfully urge that the plan be modified to incorporate our thoughts and that it be adopted in that form.

Respectfully Submitted,

Glen W. Black — President

William Green — State Grazing District

19b

page 2

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We do endorse the concept of Alternative "B" with those exceptions and observations noted above. We respectfully urge that the plan be modified to incorporate our thoughts and that it be adopted in that form.

Respectfully Submitted,

Glen W. Black — President

William Green — State Grazing District

19a

Badlands Cooperative State Grazing District
Box 422
Glasgow, Montana 59230

May 14, 1981

Glen W. Freeman
District Manager
BLM Office, Airport Road
Lewistown, MT 59457

RE: PRAIRIE POTHOLES EIS

The Badlands Cooperative State Grazing District are proud and protective of the lands they administer, including the federal lands encompassed within their boundaries. Although we are now in a very serious drought, the land resource has been well cared for by the Grazing Districts and their permittees as indicated by the large percentage of lands rated "good" condition and the small percentage of lands rated "poor" condition as shown in the tables of Prairie Potholes EIS. We do not believe that a rating of "Excellent" is a realistic goal, however we do it would necessitate severe under-utilization of the forage resources. To illustrate the goal of "Excellent" is practically unattainable, you will note that under the No Grazing Alternative D, by the year 2003, there would only be some 37,855 acres in the prairie potholes area to reach this status. Less than 5% of the total land area involved. While we would all like to be philanthropic, those of us who have our own livestock enterprises, and are spending our own money in support thereof, must of necessity be, and certainly the government administering agencies should be and limited by realism to what are realistic changes and affordable expenditures.

We wholeheartedly support and promote the multiple use concept on not only federal and state lands, but on our private lands as well, and it must be recognized by BLM and other agencies that the majority of wildlife sustenance is provided by the private lands in the Prairie Potholes EIS area. Two basic facts are responsible for the distribution of wildlife; (1) the majority of the wildlife is private ownership (68% of the total area of Prairie Potholes, as shown in EIS table of land ownership on page 4-1 of Appendices, is privately owned), (2) the private lands are, in general, better quality and much more productive lands than the public lands, thereby attracting wildlife of all kinds in far greater numbers than their proportionate share. This livestock, wildlife trade-off is not a one way street and certainly should be considered in land management policy decisions. We endorse BLM attitudes of wildlife superiority over livestock are on public lands. It should be remembered that livestock grazing is one of the ones that is paying its way on public lands. Bias toward wildlife is illustrated in the EIS statement by the ratio of wildlife pictures to livestock pictures (8% to 4). Again, we support multiple use, but only true multiple use, not pro-wildlife.

We support Alternative "B" (continuation of present management) with some modifications. Those specific points of disagreement are as follows:

(1) As noted above, we do not agree with the statement that livestock and wildlife are negative towards livestock production. This becomes even more evident when one notes that the draft EIS calls for the revision of all 93 existing AUMs (see paragraph Summary page 93) and then on page

20

Wildlife Management Institute
799 Nine Building, 1800 Vermont Ave., N.W., Washington, D.C. 20005 • 202 / 347-1774

DANIEL A. POOLE, Chairman
L. S. JAHN, Vice-President
L. I. WILKINSON, Secretary
DON E. PARKER, Treasurer

May 19, 1981

Mr. Glen W. Freeman
District Manager
Bureau of Land Management
Airport Road
Lewistown, Montana 59457

RECEIVED MAY 19 1981 BLM LEWISTOWN, MONTANA

Dear Mr. Freeman:

The Wildlife Management Institute is pleased to comment on PRAIRIE POTHOLES EIS, Vegetation Allocation.

The plan and preferred alternative (continuation of present management) are basically sound. For wildlife purposes, however, some changes are needed. We would naturally prefer alternative D or a far wildlife management.

The preferred alternative should be strengthened by inclusion of the increased riparian protection in Alternatives D and E and by placing more emphasis on maintaining and improving upland wildlife cover than is now shown.

Page 1 - 4th paragraph. We object to "this management plan may be the preferred alternative or it may incorporate parts of all alternatives." We do not agree; the management plan should be renamed closer to the preferred alternative in the final EIS or the entire public involvement process in EIS is meaningless.

An explanation of the legal status of the Sims of Montana Grazing Associations should be added on page 1.

The wildlife effects of the enactment, implied ownership should be discussed. Because the social habitat unit must be considered, we just the public land portion.

A number of the references cited in the text are not listed in R-1.

There is much potential for wildlife in this unit. It can be realized by improved riparian and cover plans.

These remarks have been coordinated with William S. Horne, the Institute's Western Representative.

Sincerely,

Daniel A. Poole
President

DAP:lsh

DEDICATED TO WILDLIFE SINCE 1911

21

VALLEY COUNTY CONSERVATION DISTRICT
210 RESIDENCE AVENUE SOUTH
GLASGOW, MONTANA 59230
PHONE: 228-2060

May 25, 1981

RECEIVED
MAY 2 1981 BLM
LEWISTOWN, MONTANA

Glen W. Freeman
District Manager
BLM Office, Airport Road
Lewistown, Mont. 59457

Re: Prairie Potholes EIS

Dear Sir:

Our Conservation District Board would like to advise that we support Alternative "B" (continuation of present management, a multi-use concept for both livestock and wildlife.

We believe that continuation of present management procedures that most and existing management has been working effectively and should not be changed (Alternative).

Livestock production is a beneficial use of public lands and should be given equal status with other multiple uses.

We believe that fencing of stream sites both sides for some if miles to improve riparian areas is irreversible and create maintenance problems, be a costly project and result in minimal benefits.

We agree that noxious weeds and rodents are a concern and should be controlled. Wildlife damage should be great in the interest of multiple use and enjoy than enjoy the wildlife management.

We believe that best relation management would be the most practical way to improve range for the benefit of all.

We respectfully request consideration of our recommendations as reviewed above in the preparation of the final EIS of the Prairie Potholes.

Sincerely,

Orvis Fenner, Chairman
Valley County Conservation District

OF/ane

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"Eat Beef—Delicious, Nutritious"

THE BLACK RANCH

MRS. R. R. BLACK - JOHN W. BLACK
MRS. JOHN W. BLACK
Hereford & Angus Cattle
HINSDALE, MONTANA 59241

Page 8

they promote are basic. Hence, a wholesale criticism is an indictment of the BLM as well as the user. The section on "VISUAL RESOURCES" is an interesting section on the review of such proposal. I think it does two things. First, the test changes from proposal to proposal, and two, while it is never said in so many words, improvements are apparently not a "no-no". Perhaps it is time to recognize that "BEAUTY IS IN THE EYES OF THE BEHOLDER". Fences, forming and the grass that results are all part of it, and beautiful to many. Further, it goes to show how nebulous some visual considerations are; so too, many of the wildlife and bird proposals who can forecast weather and its effect on that game and who can predict hunting demand (certainly the antelope are an example, only hard Canadian winters drive them South so we have no predictable population nor apparently do we have hunter demand, partly no doubt because hunting costs are going up.)

Again this EIS is negative for it purports to represent facts; (I suspect the range survey is acceptable but here is the BLM who have been administrating public land for forty years without meaningful comparisons to make over the years. BLM has never adopted one type of range survey and stayed with it) but gives no plan for administration other than to say in some cases the ranchers would be need at them (negative again). The operations of the BLM will have as much to do with the result of any plan adopted as the facts they lay out in the EIS.

Certainly, Alternative "B" is the most probable of reasonable administration

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"Eat Beef—Delicious, Nutritious"

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MRS. R. R. BLACK - JOHN W. BLACK
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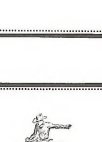
Hereford & Angus Cattle
HINSDALE, MONTANA 59241



Glen W. Freeman
District Manager
BLM District Office, Airport Road
Lewistown, Montana 59457

RECEIVED
MAY 2 1981 BLM
LEWISTOWN, MONTANA

RE: PRAIRIE POTHOLES EIS

I support Alternative "B" (continuation of present management) though I feel certain changes in the report and its conclusions are desirable.

As a grazing user, I feel that the lands covered by this EIS can be pointed out as a good example of multiple use. Moderate use in the proper season with increasing range improvements (water and fencing) will benefit the land, the livestock and the wildlife. And it appears that in a comparison of the various proposals A, C, D, E to Proposal "B", Hornsby's claim that moderate and proper grazing will have more benefits than non-use is supported by this EIS. It cannot support the negative tone of the EIS---for example, the term "NON CONSUMPTIVE VEGETATION" could as well be called "RESOURCE MAINTAINANCE VEGETATION". More questionable are the statements as to AMP's and wildlife. AMP's were not intended to be an enforcement tool (in does that fact very nearly stopped the first AMP's from being signed), but are cooperative effort by the user and the BLM to better care for and use the range resource. And a part of that AMP is the consideration of wildlife and its needs. I am sure wildlife has much benefited by the additional water and later turn out dates and non use of AMP pastures. Why should this EIS treat livestock grazing and wildlife as separate and antagonistic uses. They are not. With few exceptions good livestock pastures (especially when rested in the spring) are good wildlife habitat. AMP's are only as perfect as the people who make them and as effective as the plans

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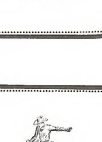
"Eat Beef—Delicious, Nutritious"

THE BLACK RANCH

MRS. R. R. BLACK - JOHN W. BLACK
MRS. JOHN W. BLACK
Hereford & Angus Cattle
HINSDALE, MONTANA 59241



Page 3

for while BLM is short on aptitude in administration "as is" I cannot even imagine the BLM "tooling up" for the other alternatives (except do nothing). In the same light, BLM, always in a quest for appropriations, tends to down grade public lands seeking to bolster the need for more expensive administration, including improvement monies.

I question the 8 million plus dollars mentioned as needed in Alternative "B". I feel users should be allowed to pay a part of improvements; for that contribution will justify the need of the improvement and will also lead to cooperation between the government and the users involved.

Certainly, there are some good points in the EIS. A recognition for control of sourge and prairie dogs are great, and Alternative "B" is not all that bad. Part of the negativity of the report is the volume of it and the figures. Maybe they are necessary, but I can't see the "FOREST FOR THE TREES".

Sincerely,

John W. Black

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NORTHERN MONTANA COLLEGE

DEPARTMENT OF SCIENCES

RECEIVED MAY 2 2 1981 HAVRE, MONTANA

May 21, 1981

Mr. Glenn W. Freeman
District Manager
District Office
B.L.M. Airport Road
Lewistown, Montana 59457

Dear Mr. Freeman:

122 I would like to make a few comments about the Prairie Potholes EIS draft. I feel the bureau did a good job in preparing the material and presenting it in a readable form.

123 I feel that alternate B is the best choice. I am quite concerned with the program now going on in Saskatchewan and Alberta related to the draining of the prairie potholes. We need to maintain the reservoirs we now have and also to improve them as much as possible to provide for additional waterfowl nesting sites.

124 Due to the prairie dog towns we need to maintain certain areas, however, I feel that the cutting down of the acreage of each town would not be satisfactory. I feel it would be best to maintain some of them as they are and eliminate others. I know the problem related to the Black-footed Ferret and concern for the animal. I feel that some type of policy should be developed in relationship to the prairie dog.

As a biologist and a botanist I noted the species lists and I felt the plant species list is not complete in relationship to some very common plants of the area.

I know it is not possible to list all the plants but some species that are quite common to a number of the areas, such as the pond sites, were not listed.

Thank you for the opportunity for me to comment on the draft.

Sincerely,

L. W. Hagener

L. W. Hagener, Chairman
Department of Sciences
Northern Montana College

NORTHERN MONTANA COLLEGE IS ONE OF THE NORTHERN UNIVERSITY SYSTEM, THE OTHER TRADITIONAL INSTITUTIONS OF WHICH ARE UNIVERSITY OF MONTANA AT MISSOULA, MONTANA STATE UNIVERSITY AT BOZEMAN, MONTANA COLLEGE OF MINERAL SCIENCE AND TECHNOLOGY AT BUTTE, WESTERN MONTANA COLLEGE AT DILLON, EASTERN MONTANA COLLEGE AT BILLINGS

25

IN THE DIRECTION

United States Department of the Interior

BUREAU OF MINES
940 E STREET, NW
WASHINGTON, D.C. 20241

May 18, 1981

Memorandum

To: District Manager, Lewistown District Office, Bureau of Land Management, Lewistown, Montana

From: Director, Bureau of Mines

Subject: Draft environmental statement, Prairie Potholes Vegetation Allocation, Montana

Thank you for the opportunity to review the Prairie Potholes draft statement.

On February 29, 1980, our Western Field Operations Center responded to the Acting District Manager in Lewistown, Montana, concerning the public announcement of the Prairie Potholes Vegetation Allocation Decision. That response indicated there are numerous prospects and claims for gold-silver, coal, clay, and sand and gravel in the planning area. A number of prospects and claims are also for other mineral commodities. Although the present draft indicates the Bureau of Mines was consulted during draft preparation, no mention of minerals is made. We suggest a statement be added to Chapter 4, Environmental Consequences, that mineral development 127 is included in the definition of multiple resources management in the last sentence under Setting on page 1 or as part of "multiple uses" in the last paragraph of page 1.

The nine counties that are involved in the vegetation allocation had more than $400,000 worth of minerals produced each year in 1978 and 1979.

R. Berger

DEPUTY Director

RECEIVED MAY 2 6 1981 A.M. LEWISTOWN, MONTANA

24

Steven K. Page
Page Whitham Land & Cattle
Malta, Montana 59538

Glenn W. Freeman
District Manager
Drawer 2160
Lewistown, MT. 59457

Dear Mr. Freeman:

I am writing this letter in response to the Prairie Potholes EIS, and would like to make a few comments in regard to the effort.

First, let me compliment your organization on a well written, relatively brief document.

I only have a few criticisms and concerns and will briefly outline them.

125 It would be my feeling that wildlife and wildlife habitat have received die-proportionate emphasis over livestock grazing with no mention of wildlife habitat on intermingled or adjacent private lands. Too have to agree that as the result of cultural practices on private lands, the public lands are capable of sustaining larger wildlife populations than would otherwise be possible.

It is obvious to me as a rancher and also as a student of the draft EIS, that the condition of our public range lands is generally good and in an improving status. Resulting from this conclusion, it becomes apparent that the only practical alternative for future management is more of the same, with continued emphasis on added production for livestock grazing and wildlife habitat.

126 I am however, more than little concerned about the possibility of incorporating parts of other alternatives into the "preferred alternative".

We all know that there is no perfect formula for managing rangelands that will satisfy everyone, nor would it be practical from an economic standpoint. BLM has been successful in the past, so why don't we just continue to manage these lands under the multiple use concept.

Sincerely,

Steven K. Page
Rancher

RECEIVED MAY 2 8 1981 A.M. LEWISTOWN, MONTANA

26

Montana Audubon Council

Post Office Box 1075
Billings, Montana 59103

May 21, 1981

Glenn W. Freeman, District Manager
Bearpaw Office, Bureau of Land Management
Airport Road
Lewistown, Montana 59457

Dear Sir:

Please consider this as comment upon the Draft Environmental Impact Statement (EIS) for the vegetation allotment in the Prairie Potholes Management Area of Montana.

Of the 6 management alternatives presented we would support Alternative B as the most practical. Given the present political climate, funds will not be available for Alternative A or Alternative C, the latter we would object to as "this alternative does not consider any rest or deferment grazing treatments proposed specifically for high value streamside riparian areas, fisheries reservoirs or seeps." " " " (page 8). Alternative F merely perpetuates bad situations already existing and does not improve the considered critical; however, we might end up with it even so! Alternative B wouldn't really accomplish all that much even if it were politically feasible. Which brings us to Alternative D as the only one other than Alternative B, the letter being that we have said above we will support.

128 We do appreciate that the agency recognizes the importance of streamside and pond borders ("the riparian habitat"). We would urge strongly that Alternative B be modified if at all possible to include protection of more riparian habitat than is contemplated. Here Alternative D and Alternative A have much to recommend them, but at the same time we recognize the other values that must be considered, not the least being the money available. (The vary rare "Prairie Potholes" denotes the significance of its importance to waterfowl. Too many potholes have been drained already. What we are really saying here is: we recognize the needs of the ranchers but would also hope that there can be a little give and take which will result in better protection around more of the potholes than any exists for many of them. We do not think this is too much to ask.)

129 It will be interesting to learn if the vegetation management plans proposed to be adopted will in the long run reduce the prairie dog population. You can have all of the "dogs" off and still if overgrazing continues there will not be any improvement whatsoever. Prairie dogs can certainly maintain themselves once established and there are always some areas that will support the animals, but the question still remains: has man, by his activities, greatly expanded his "dogs" opportunities? We may have a chance to find out.

130 Very truly yours,

JAMES PHELPS, President
Montana Audubon Council

27

The Big Sky Country

MONTANA STATE SENATE

SENATOR MARK ETCHART
District No. 11
Powell, Granite and parts of Deer Lodge and Missoula Counties
HELENA ADDRESS:
Rm. 310-A Capitol
Ph. 449-4201

Box 229
Glasgow, Mt. 59230
May 21, 1981

COMMITTEES:
Chairman, Senate Judiciary
Members: Agriculture, Livestock and Irrigation
Natural Resources

RECEIVED
MAY 26 1981
BLM
LEWISTOWN, MONTANA
STATE DIRECTOR
ADMIN.
RES.
PLANNING
ENVIR. COORD.
FILE
ASTHO

Mr. Glen Freeman
BLM Office, Airport Road
Lewistown, Mt. 59457

Dear Sir:

COMMENTS ON PROPOSED PRAIRIE POTHOLES RIS

131 Alternative 3 appears to be the best plan that is being considered. These lands should be managed pretty much as they have been in the past and are to manage reasonable use of these fragile resources. Part of the management should include the grazing of livestock, utilize the forage which is otherwise wasted, energy and would diversify the ranch economy, and help our national economy achieve stability by decreasing our balance of payments deficit through a stable domestic meat production which would not require increased importation of foreign meat.

132 It opposes the construction of fences to fence livestock off of waterfolws, and streambanks to protect "riparian" habitat. Montana is not a riparian state as far as water rights are concerned and ranchers have gained a valid "use" water right on these streams through the watering of their livestock there. These rights are currently being filed on as a result of SB 76 which was passed by the 1979 Montana Legislature. To deny these livestock access to water would be a denial of a valid water right which had been granted by the state.

Carrying capacities should not be reduced because in many cases they are too low already. If AMP's result in increased forage production carrying capacities should be raised to justify the expenditures made in implementing the AMP.

And finally these federal lands should be returned to the control of the state of Montana where they rightfully belong. If this is not done there should be a Constitutional Amendment to the U.S. Constitution which would remove the present constitutional limitations on federal landholding.

Sincerely,

Mark Etchart

Mark Etchart

28b

Development
Under the management of
Mr Frank Morgan and
Mr Miles Hemphill we had made
wonderful Progress in Range and
Water development, and should
have more work, would increase
contract of 10 acres number

The Past 15 years We have
been going backwardly with nothing
but Harassment and a Paper Blizzard
Not Recent have any Energy for
Range improvement and rent make
only Enemies of all

I have been in the livestock
Business for the Past 55 years in Valley co
and am Ranging at the Week Jackpot
crossing Wilderness and Mother
Nature Snake Hemm Fools out of them

136 This E.I.S. is slanted in favor
of wild life and against livestock and
you are on a Collision course because
Ranchers are furnishing lots of the feed for
this wild life on their Deeded land and are
Restricted on livestock BLM and with fifty
at 100 a ton this is too much of a donation
137 to the stuffed Shirted Crowd. Like your
intend to hold any hearings on

28a

Mr Glen Freeman
B.L.M. Cor Airport Road
Lewistown Mont

MAY 26 1981

RECEIVED
MAY 2 1981 BLM
LEWISTOWN, MONTANA
STATE DIRECTOR
ADMIN.
RES.
PLANNING
ENVIR. COORD.
FILE
ASTHO

Dear Sir

I have received the E.I.S.
Prairie Pot Holes and must say
that this is just another Instrument
Procedure

133 I can not understand why
How People continue to Pile up
this Trash, I have a Pile of books
and E.I.S. 2 feet high sent also by
B.L.M. and Every one read Obsolete
134 before they get here and none of them
make any land and water improve
the Range one Inch Rite

Left the money spent on the
Development Programs would have been
spent on Range and Water Development
for Could be going forward instead of
Backwards

135 No more Fencing we have
Enough Barbed wire Entanglement
Now, to manage livestock and wild life
I am for no changes in
the Present Friends other than to
Concentrate on more Range and Water

28c

137 this bunch of scribbly Book, I
think the Rancher and General
Public would be interested in
your explaining this Motivation
behind all and can you do it?

With some Co Employee
on the date of mtg with the B.L.M
and the High cost of fencing
and having to furnish water to
B.L.M. Cattle through Trustee
Waters on deeded land we are
getting the shaft from the
Victorial Bureaucracy while
they stand and smirk at
us

RECEIVED
MAY 26 1981
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LEWISTOWN, MONTANA
STATE DIRECTOR
ADMIN.
RES.
PLANNING
ENVIR. COORD.
FILE
ASTHO

Yours Very truly
Wayne Hutzin
Box 6 14
Glasgow Mont

I Doubt like Hell of
your will Even Read
this let alone include it
in your comments

29a

Valley County Development Council

Courthouse Annex, Room 2
P.O. Box 653
Glasgow, Montana 59230
Tel. (406) 228-2389

Dir.		Asst Dir.
Admin.		Sec.
Ag.		Ind.
Rec.		Res.

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USDI MAY 2 8 1981 BLM
LEWISTOWN, MONTANA
Dir. ___ Dep. ___
Adm. ___ Res. ___
Ad Dev. ___ Rec. ___

May 21, 1981

Mr. Glen W. Freeman
District Manager
Bureau of Land Management Office
Airport Road
Lewistown, Montana 59457

RE: Prairie Pothole Draft EIS Statement

ORGANIZATION SUBMITTING TESTIMONY:

The Valley County Development Council, (VCDC).

The VCDC is the Overall Economic Development Program Committee (OEDP) as designated by the Board of County Commissioners, and has a broad representative Board which coordinates County-wide activities. This statement is submitted at this direction.

STATEMENT:

The proposed Prairie Pothole Management Area would include parts of 11 North Montana counties and some 15.5 million acres of which 1.75 million acres (or 11%) are managed by the BLM. (Summary 1). Not immediately actionable are some 1.5 million of the square miles of area involved or thereabouts. This would be 24,218 square miles and some 380 miles across a part of Northern Montana.

138 Although a lot of effort and information has been researched, analyzed, and presented in the EIS, it is felt additional information should be presented to portray future of the past cooperative efforts of individuals, organizations, local governments, State Grazing Districts, and State and Federal agencies in reaching the present level of proficiency of management of the natural and renewable resources of this given area. A Primary Reason would be for those reading the report who are not familiar with the area, its conditions, and association with the human resources and to have a more documentary history to base future management on.

139 For instance - In each county we are locally familiar with the general situation. It varies greatly from county to county across the expansive of area taken in. A category blanket will not fit all counties. (This may be presented in appendices, if so it is not readily available for the first picture.)

Keep Valley County Growing

29b

2

140 In the past 40 some years great advances have been made in management of the land both private or federal/state holdings, in a cooperative multiple use concept and practice. One does not get this impression in reading the narrative. In reading the statistical sections, they are only relevant to the individual users of the various units listed and of course in arriving at total figures. It is Recognized that this is the first of this type of EIS so there is no comparison.

AREAS OF COMMENT:

- Alternative Management Phase:

  Alternative B. Continuation of Present Management is favored by this organization. As mentioned above, this has worked well in the past 40 years since the first management started by the formation of State Grazing Districts, Soil Conservation Districts, Federal ASCS participation in conservation practices, BLM, State Land Commission, Wildlife Agencies, Sportsmen and most importantly the people closest to the land, the farmers and ranchers. There has been a great deal of giving and taking throughout the period.

- Range Improvement Methods:

  Mechanical Treatment - In most areas this is relative to the breaking up of the *Ohio* moss blanket which covers many parts of the rangeland. Page 63, 88% of public lands become dominated by *Ohio* moss. It is good to note that the BLM will be treating this as they have not approached this problem in this manner in the past (above). Yes, it has had favorable treatment on private lands with good results. Many as part of the SCS Great Plains contracts for over 20 years have been treated in this fashion. As explained in the EIS, the *Ohio* moss blanket a cover which does not allow precipitation to penetrate and chokes out other grasses and vegetation from having a good stand. Reseeding of this type of range does not improve it. A great deal of experimentation has been carried out by the State University in Valley County headed by Dr. Don Ryerson. On Page 63, you quote Dr. Ryerson et al. "Mat lands become dominated by *Ohio* moss, blue grama and coulee under intense grazing pressure." This leaves one with the thought that this was caused by the grazing of domestic livestock. In our association with Dr. Ryerson, he points out that this has been a long time forming and goes back to the buffalo herds and the cycle of soil formation. It is not recently caused, but can be aggravated. The mechanical treatment does break it up allowing other grass types to come in along with the sages.

141

- Riparian Protection of Water Bays:

142 We have not studied the EIS close enough to note if such treatment is only proposed for federal lands. We are not familiar with all areas. We do observe that the early land owners settled on the banks of the waterways and are private lands. Many of the federal lands are very intermittent streams with short periods of water to

29c

3

142 establish riparian growths and protection. One must look at the present degree of climax condition and the cost ratio to bring it to various degrees of improvement. Perhaps this is shown. It needs further human resource information and qualification.

- Wildlife:

143 For those who are unaware of advancement of conditions of our land. It should be pointed out that 40 years ago there were no mule deer and very few antelope on eastern Montana plains, the Canadian Geese had not yet been re-introduced. These did become established in great numbers due to ways. Also the most important being improved range conditions (water development, removal of horses from the range, control of the coyote, etc.) The EIS Page 97 quotes Richard Trueblood as predicting a big game boom. Yes, it has been and continues to be a good condition change quickly within short distances across the expanse of the proposed area. Weather is a predominant factor in the rise and fall of antelope herds and the deer as well. The cold still factor moves migrating antelope herds clear from Canada to the river valleys of inappropriate feed and large die offs. The number vegetation has not been a critical factor. Any improvement is always a blessing to all users. The herd is at a low ebb from the last one. Deer must be controlled so to numbers that will not overgraze private lands along sheltered waterways during those winter months.

Hanson B. Bailey, Jr.
Executive Director

30a

Commercial Barbecue

Cornwell Ranch
Box 1232
Glasgow, Montana
59230

Dir.		Asst Dir.
Admin.		Sec.
Ag.		Ind.
Rec.		Res.

RECEIVED
USDI MAY 2 8 1981 BLM
LEWISTOWN, MONTANA
Dir. ___ Dep. ___
Adm. ___ Res. ___
Ad Dev. ___ Rec. ___

Tel. 367-5187

May 23, 1981

Mr Glen W. Freeman, District Manager
District Office, BLM
Airport Road
Lewistown, Montana

Dear Sir:

This letter is to indicate our support of Alternative B as the preferred range AI for negative allocation see management of BLM administered lands in the Prairie Pot Hole U. S. D..

Our ranch would be one of the seventy proposed are A. B. E. to be put in operation. We do have some serious concerns therefor relative to the proposed fencing of pastures and riparian areas and the resulting impact that those fences will have upon both livestock, game animals (antelope), and the vegetative resources.

The following are some of our concerns....

144
1.- The location and maintenance of fence.
It is relatively easy to draw lines on paper for a proposed fence. It is another matter to locate a fence where it has a reasonable chance of surviving the elements, water and snow damage.
What was intended to be a positive approach to the achievement of goals, could become an operational, and maintenance nightmare. What was once a very good ranch could be fenced into oblivion.

145
2.- Livestock and game movement.
The free movement of both livestock and game, antelope in particular, is very important to their well being. Something like government, the least disturbance the better. Antelope winter migration is tantamount to survival. There are times when livestock survival is also dependant upon their being able to transloca te freely.

3.- Pasture size.
Numerous small pastures could very well increase the liklihood of vegetative resource damage. Small numerous pastures limit livestock movement, the resulting harrassment defeats from their welfare. Your statement AB to improved breeding results as relative to small pastures is not absolute, it could be counter productive.

30b

Cornwell Ranch
Box 1231
Glasgow, Montana
59230

406-367-4197

These are some of our concerns as we see them relative to our ranch operation. Management is the key to a well run ranch, equally important to both the animal and the vegetative resource. Judicious and practical management decisions can enhance attainment of desired objectives; poor impractical decisions could well destroy or prevent the achievement of ranch and range improvements.

Sincerely Yours,

Cornwell Ranch
Walter Cornwell

31b

Defenders of Wildlife

Prairie Potholes EIS--page two

151 The wildlife illustrations is replete with information on the importance of prairie dog habitat to other wildlife species. Before a decade study points out that more than 50 species of small prairie wildlife are associated with dog towns, some species, such as mountain plover and burrowing owls, seem almost completely dependent. Yet the Bureau wants to further reduce this already seriously diminished habitat.

152 I searched unsuccessfully through the document for the rationale for prairie dog reduction, and wasn't able to find it. References were made to alleged competition for forage with livestock, but this was never stated or substantiated. Progress reports from research being carried out by Montana State Parks in the Cooney Dam Pumpkin Creek Reservoir area (Mr. Robert Gerdes) appear to be directly refuting the long-held belief that prairie dogs are competitive with livestock for range vegetation. In the preliminary results of these studies have indicated sheep gained more weight in areas where prairie dogs were present than where they weren't. I'd strongly urge the all to write to the Forest Service and request information on a study entitled "Prairie Dog-Cattle-Vegetation Interactions Under a Season Long Grazing system in the Northern Great Plains."

What the Bureau purports to do in its preferred alternative is to keep prairie dogs at an artificially low level, without presenting any information or data to suggest such a policy is necessary or desirable. Just off the research involving prairie dogs during the last decade suggests we are just beginning to understand the ecological roles these small rodents perform. There are significant evidence to suggest that rather than bolter the destruction of the species they have often been portrayed as, they may play a key role in plant succession.

153 For the above reasons, Defenders of Wildlife finds the recommended prairie dog levels for the Prairie Potholes area completely unacceptable. A more logical alternative, and a less costly one, would be to allow prairie dogs to exist at a level equivalent to their pre-1950 occupation.

154 I would challenge the Bureau to show to any shape or form that overshooting prairie dogs, as proposed in the preferred alternative, is in any way a cost-effective means of managing public lands. The expenditures for control which far exceed the alleged benefits of more forage for livestock gained by reduction of prairie dogs. Until the alleged negative impacts of prairie dogs are clearly documented, it's completely nonsensical to limit them to an arbitrary sequence figures; the benefits of the dog towns have been too clearly documented to allow it.

155 Finally, the BLM deserves criticism for not pointing out that prairie dogs are far more often the victim of overgrazing rather than the cause. If we are to make any progress in solving this complex resource issue, the Bureau needs to be more all the facts are available.

Thank you for the opportunity to comment.

Sincerely,

Hank Fischer
Wildlife Representative
MT Wildlife
Missoula, MT 59801

31a

Defenders of Wildlife

Glenn Freeman, District Manager
Bureau of Land Management, Jordan District
Drawer 1529
Lewistown, MT 59457

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MAY 27 1981
BLM
LEWISTOWN, MONTANA

Dear Glenn,

These are the comments of Defenders of Wildlife on the Draft Environmental Impact Statement for the Prairie Potholes area. Your staff deserves commendation for putting together a document that is both attractive and easy to understand.

146 My overall comment regarding the document is that it seems when there is a conflict between livestock and wildlife, livestock always seems to get the nod. In that way, your document fails the mandate to promote multiple-use decisions. For instance, the document points out the overwhelming condition of rangelands and acknowledges how important it is to wildlife, but elsewhere it suggests that the only effective does only the minimum to protect that habitat.

147 The document points out that early season grazing has a deleterious impact on pronghorn species and that early season grazing is preferred alternative calls for continued early season grazing. I didn't understand why this was such an all-or-nothing situation; couldn't some allotments have later turn-in dates?

148 The document points out how antelope seem's able to utilize spreded wheatgrass very well, and that upland birds won't seem to fit, yet recommends conversion with crested wheatgrass in the preferred alternative. Your document points out alleged conflicts with prairie dogs and livestock, and somehow that problem by seeking to reduce prairie dogs by as much as 95%.

149 One of the main persons conservation organizations worked propaganda claiming for Bureau of Land Management holdings was that we felt wildlife weren't receiving the consideration it deserved, and that livestock grazing was receiving an unreasonable priority. There are strong indications in this document that situation still persists.

150 For instance, the document explains how important sturgeon habitat is to wildlife, for numerous reasons. It points out that almost 70% of the prime wildlife habitat in the area is in fair or poor habitat condition. Those most wildlife production occurs in those riparian areas. It might also follow that wildlife production in the Prairie Potholes area is far below potential, and could be improved significant if the riparian areas were managed differently. Indeed, since the document points out those areas make up only a very small fraction of the area (about .06 percent), it doesn't seem unreasonable to manage those areas in such a manner as to benefit wildlife most. Alternative D points out wildlife just what some of those benefits would be.

151 Again, it seems as though the Bureau has completely lost the perspective in attempting to establish appropriate prairie dog levels for the EIS area. In the document points out, historically prairie dogs occurred in tremendous abundance over the study area; now they occur on less than 1% of the Prairie Potholes area, and the Bureau is saying that's too much!

1244 NINETEENTH STREET, NW • WASHINGTON, DC 20036 • (202) 659-9510

32a

NATIONAL WILDLIFE FEDERATION

1412 Sixteenth Street, N.W., Washington, D.C. 20036 202-

RECEIVED
MAY 27 1981
BLM
LEWISTOWN, MONTANA

May 20, 1981

Mr. Glen W. Freeman
District Manager
District Office, BLM
Airport Road
Lewistown, Montana 59457

Re: Vegetation Allocation in the Prairie Potholes
Area of Montana - DEIS

Dear Mr. Freeman:

Attached are the comments of the National Wildlife Federation (NWF) on the Draft Environmental Impact Statement for Vegetation Allocation in the Prairie Potholes Area of Montana. NWF appreciates having had the opportunity to comment.

NWF, with over 4.6 million members and supporters and affiliate organizations in all fifty states plus Guam, the Virgin Islands and Puerto Rico, is the largest private non-profit conservation organization in the nation. Dedicated to the wise use and conservation of the nation's natural resources, especially its fish and wildlife, NWF is particularly interested in the proper management and balance of multiple uses on our nation's public lands managed by the Bureau of Land Management (BLM). The Bureau of Land Management is given a Congressional mandate by the Federal Land Policy and Management Act (FLPMA) of 1976 to consider a variety of uses on public lands on a sustained yield basis to meet present and future needs. FLPMA's direction is particularly important in that it mandates fish and wildlife needs are one variable in BLM's management plans. BLM's main responsibility for wildlife is to properly manage wildlife habitat on a sustained yield basis. Our concern is to see wildlife needs fairly and equally considered in this draft Environmental Impact Statement. NWF

40th ANNUAL MEETING MARS 19 1981 NWF Mark Plate Wildlife Photography
100% recycled paper

32b

Mr. Glen W. Freeman
Page Two
May 20, 1981

congratulates the Bureau for its increasingly improved consideration of wildlife needs as one variable in multiple use planning.

Sincerely,

Keith Van Hess
Resource Intern

Thomas D. Lustig
Counsel
Resources Defense Division

Enclosure

KVH - TDL/cb

cc: Wilbur Rehmann, Executive Director
Montana Wildlife Federation

Gary Stukey, Past President
Montana Wildlife Federation

Chuck Griffith, Regional Executive
Montana Wildlife Federation

32d

(2)

be reached by this alternative at the least cost of any alternative. The resource objectives of this plan would be the same as Alternative A: ..."to provide balanced vegetation allocation to non-consumptive uses for wildlife habitat, watershed, soil and esthetic quality protection, and recreation as well as to consumptive uses for livestock and wildlife."

NWF also supports Alternative B's plan to defer grazing until peak flowering time for key plant species on range in fair to poor condition. We also support rest, deferment or rotational grazing treatments to attain good or excellent ecological range condition on 80% of the range area.

155 We request clarification on page 93, 4th paragraph of the description of Alternative B as to what ..."other resource objectives would be."

156 NWF feels that Alternative Plan B does not call for the development of enough Allotment Management Plans (AMP's) to adequately manage the range and fully meet the Alternative A resource objectives which we support. As the DEIS states ..."Moderate use allocations on 349 potential AMP allotments without improved grazing management would result in the continued overuse by livestock of preferred plants and areas in some allotments."(Pg. 95) NWF cannot endorse this part of Plan B. The only way to provide improved grazing management is to develop AMP's for these 349 allotments as called for in Alternative A. The AMP's could be developed in a long term plan giving priority to the allotments with the most severe overuse. Having these additional AMP's would give BLM closer control in managing the allotments on a factual basis since the AMP would require detailed knowledge of the ecological condition of each allotment. More AMP's

32c

GENERAL COMMENTS

BLM has identified three major concerns raised by the public during BLM's planning process for this DEIS: livestock production, wildlife habitat maintenance and watershed protection. NWF believes that the area's ranching industry should not be adversely impacted by the Bureau's final management plan, but we also believe a better balance of wildlife and livestock use can be obtained without detracting from either. NWF endorses the Bureau's statement in the DEIS Summary that the final management plan..."may be the preferred alternative or it may incorporate parts of all alternatives..."

Because of our concern with the conservation of vital wildlife habitat and Riparian vegetation, we cannot support or endorse all of the preferred Alternative A. We do support and endorse a healthy mix of parts from Alternative A, B and D. This optimum mix of parts can best meet the needs of the area's ranching industry, wildlife needs and the wise use of the Riparian vegetation on a sustained yield basis. We offer our suggestions in the next section under specific comments and then will summarize an alternative management plan we think meets all uses of this area fairly and equally. This alternative management plan was put together with the help of our Montana affiliate, the Montana Wildlife Federation.

SPECIFIC COMMENTS

Alternative B: BLM's Preferred Alternative Range Management

NWF endorses the range management parts of Alternative B. Ninety-five percent of the primary BLM management goal of having public lands in 80% good or better ecological range condition could

32e

(3)

would, at the same time, allow more livestock grazing as well as more browse for wildlife. NWF requests the Bureau to add more AMP's to its final management plan than are currently planned for in BLM's preferred Alternative B. We ask that the additional AMP's be added at a rate greater than the past average of 10 per year.

NWF also believes the final management plan should have mechanical treatments for rangeland allotments falling between that called for in Alternative A and B. NWF also supports Alternative A's proposal to perform mechanical treatments on 281,000 acres of primarily clubmoss-blue grama sites that fall within soil subgroups 1, 2 and 5.

157 RIPARIAN VEGETATION

NWF finds that Alternative B's plan for the conservation and use of Riparian vegetation does not meet the objectives and directions of BLM's Wetland-Riparian Area Protection and Management section of its management manual (Chapter 6740). Objectives of wetland protection and management are:

.01 Objectives. The objectives are to:

A. Implement a management system to protect, maintain, and enhance all wetland-riparian areas administered by BLM.

B. Set forth policy for the identification and inventory of all BLM-administered wetland-riparian areas using appropriate methods.

C. Ensure that all wetland-riparian areas, their unique characteristics, and their ecological requirements (biological, chemical, and physical) are managed in accordance with legislative, Executive, Departmental, and Secretarial directions. Such directions include, but are not limited to, those concerning land-use

32f (4)

157

classification, resource management, development, regulation, and licensing activities.

Reasons for the objectives can be found in .07 Background.

.07 Background. Wetland-riparian areas values are especially important because they are a critical source of biological diversity. Wetland-riparian areas are popular recreation areas, excellent sources of rock and aggregate, preferred grazing areas, productive timber sites, road construction sites, and provide scenic variety. The majority of this country's wildlife either depend on wetland-riparian areas or use them proportionately more than any other habitat type. Wetland-riparian areas are fragile and comprise an extremely small percentage of the public lands administered by the BLM. Many have been destroyed or degraded. This degradation is influencing water quality and quantity, flood frequency and severity; fishery, wildlife, recreational, and substantial financial; economic impacts and a wide range of fish and wildlife, including many endangered, threatened, and sensitive species.

Indeed, FLMPA Sections 102 a (8) and (11) requires protection and management of these Riparian areas as part of the management of public lands.

The Wetland-Riparian Area Protection and Management section of the manual delineates grazing management procedures in Riparian areas in section .23(A)(1). Grazing management practices must give Riparian vegetation the protection necessary to maintain and restore habitat cover and diversity, shoreline-streambank stability, reduce sedimentation, provide water temperature ranges suitable for desirable aquatic life and meet State and Federal water quality standards. Grazing management procedures may include livestock management practices or protective fencing to exclude grazing use in Riparian areas.

32h (6)

158

between Alternatives B and D, with the long range objective of restoring the Riparian vegetation currently in unsatisfactory condition. We also support Alternative A's plan to use rotational or rest treatments for grazing treatments on the Riparian areas.

Strutting Grounds - Upland Game Birds

NWF asks that wing fences be built to protect the strutting grounds of upland game birds. These fences will direct cattle around the strutting grounds and provide good residual nesting cover for the birds.

159

Monitoring

NWF agrees that the key to the success of any grazing management plan is a system of monitoring and evaluation that ensures the stated objectives are being met (DEIS, Pg. 4). NWF additionally believes that monitoring can only be successful when factual inventory data has been gathered for each allotment so that a base line data system is used by the monitors to see if objectives are met. NWF believes the data base for monitoring is incomplete in the Prairie Pothole area. Much of the research has been done by university graduate students with little or no follow-up. Many trend studies are just beginning in the area and the data is not available to monitors. NWF supports the concept of monitoring but only when backed up by an inventory data base. Creating more AMP's would help accomplish this. We cannot support the current Administration's policy of developing management plans without a satisfactory inventory. It is biologically irresponsible and short changes all users.

32g (5)

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Sixty-nine percent of the Riparian habitat along 186 miles of streams are in unsatisfactory condition for wildlife habitat, adversely influencing water quality, stream channel stability and the production of Riparian vegetation cover (DEIS, Pg. 1). Obviously, continuation of the present management is unacceptable. Fencing 15% of high value streamside Riparian zones for 4-10 years and 375 one acre seeps and 7 fishing reservoirs totaling 34 acres is too little and perhaps too late to restore the Riparian zones. In addition to the major streams, the area affected by the EIS has approximately 2,298 reservoirs and 3,472 natural potholes (DEIS, Pg. 39). During drought conditions, livestock can seriously impact the water quality, vegetation cover, and diversity in these Riparian areas. In northeast Montana, many Riparian areas have had their vegetation reduced to perennials with long tap roots by cattle grazing. These areas need fencing to restore them so that they can be properly managed on a sustained yield basis. Under present management, they can be destroyed. These potholes and vegetation filled reservoirs are essential to wildlife and waterfowl and should be properly managed. Also, restoring the Riparian vegetation of these potholes will result in a reduction in sediment yield, increasing the lifespan of these waters for all uses.

Because Riparian areas are used disproportionately more than any other vegetation type by livestock and wildlife, these areas should receive desproportionately more management practices to keep them productive.

NWF asks that the final management plan recognize the need for more fencing in Riparian areas. We support an alternative that would rest for 4-10 years a percentage of high quality streamside Riparian zones and seeps, potholes and reservoirs. This percentage should fall

32i (7)

160

Canadian Antelope Herds

We request that the habitat used by wintering Canadian Antelope Herds be identified on the wildlife habitat maps. These herds can number from 3,000 to 20,000 animals. NWF also requests that the AUM's used by these herds be delineated in the final EIS. Because these herds may utilize additional AUM's not already allotted wildlife in Alternative A, B or D, we request that the final alternative correct this oversight and allot more AUM's to wildlife if necessary.

SUMMARY

The National Wildlife Federation believes a mix of parts of Alternatives A, B and D can best meet the needs of all users of the Prairie Potholes area. We present our management alternative in hope that BLM finds it useful.

National Wildlife Federation's Proposed Alternative

161

Range

AMP's would be developed for 72 high priority allotments (covering 455,009 acres) and revised on the current 93 AMP allotments (338,986 acres). Because the objectives for range management are the same as for Alternative A, 349 additional allotments are proposed for AMP development on a long term basis. These new AMP's will be developed as needed at a rate greater than past AMP development. This increased development of AMP's is in response to the fact that on some of these 349 allotments, moderate use without improved grazing management would result in the continued overuse by livestock of preferred plants and areas in some allotments.

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(8)

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Fencing 28 miles of high quality streamside riparian zones in the EIS area would provide continuous rest for 4-10 years on 19 percent (679 acres) of the total of these zones. Long term objectives for streamside riparian vegetation would be to increase the quality of the 59% of streamside vegetation presently in unsatisfactory to good condition. Wing fences will be built to protect the strutting grounds of upland game birds.

After vegetation in the fenced area has improved to 90% of optimum streambank cover, rotational or rest treatments would be applied. The remaining miles of high quality streamside riparian zones would also be managed by rest or deferred grazing treatments.

Riparian vegetation on 575 seeps (averaging 1 acre in size), 11 fishing reservoirs and a designated amount of natural potholes would also be rested continuously for 4-10 years. Rotational or rest grazing treatments would be applied following the initial rest.

Grazing would be periodically deferred until peak flowering time for key plant species on all proposed or existing AMP's that have at least 50 percent of their acreage in fair or poor condition. The remaining proposed and existing AMP's would also be considered for rest, deferment or rotational grazing treatments to attain good or excellent ecological range condition on 80 percent of their area or to meet other resource objectives. Mechanical treatments might be done on any allotments with proposed or current AMP's. Mechanical treatments would be done on a total of 281,000 acres of primarily cheatgrass-blue grass sites that fall within soil subgroups 1, 2, and 5.

About 650 miles of pasture and allotment boundary fences would be needed to support the grazing treatments. An additional 103 miles of fences would be needed to exclude livestock from riparian zones.

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162

Hon.;

Thus the areas produced testimony from more than the individuals as to their usage during extreme conditions. Mostly from birds pushed out of Canada during severe Canadian freezy passages

Thank You

Gary Stolz

DR ADD/LM
RA PA
AA LR NOD/ PM
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USDI MAY 27 1981 BLM
LEWISTOWN, MONTANA
PM MM
AM RDM FLD
ADMIN NOD/DD

32k

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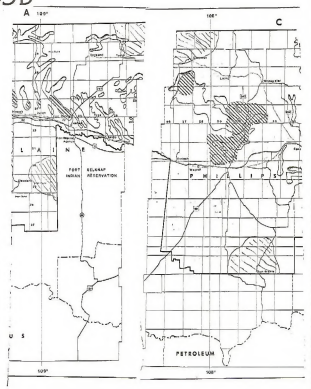
About 450 - 1,000 water sources would also be developed as needed and 50 cattle guards set in place. The Bureau will assist the permit holders in maintenance of remote watering devices. An undetermined number of shade sources for livestock and insecticide devices/ollers would also be built.

Chemical treatment of 2,300 acres of noxious weeds and 1,100 acres of prairie dog towns would occur. Prairie dog towns will be maintained at a predetermined level to support a viable population of prairie dogs for public use, and to provide habitat for associated wildlife species, especially BLM sensitive species which include 6 species identified by the Montana Department of Fish, Wildlife and Parks and federal endangered or threatened species. Prairie dog control will be according to Appendix 3.12. Montana BLM Prairie Dog Policy as of April, 1980. The total cost of range improvements for this alternative would be between $8,401,500 to $14,334,300.

33b



34

163

Mr. Freeman-I dont know nothing about some of what
were but I do know you some grafters find some ways to
make money on your useless EIs. This Prairie Potholes
is less than a Penney ards catalogue all evil. Look
6. If you a old aunt then the size of a gigantic pop
ey than would be better and usefull too. But instead
making one big book with one set up and printing cost
you have three little books at probably triple the
price. As an old pressman I know this takes more some
of usually double. Too much ink that short little item
know that printing time is only a pinhead would not
increase times at much at least. Instead of one state
printer will you Washington printers have to do much
more for spending money. You are going the way of the
fossils. Brontosaurus and anti are going to point out
your sins at the end of a big stick.

Sincerely,

Reuben G. Shiss

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36

United States Department of the Interior
BUREAU OF LAND MANAGEMENT
WATER AND POWER RESOURCES SERVICE
Upper Missouri Region

IN REPLY
REFER TO: 1390-420
PAP-1

JUN 5 1981

Memorandum

To: Glenn Freeman, District Office, Bureau of Land Management
Airport Road, Lewistown, MT 59457

From: Regional Director, Billings, Montana

Subject: Draft Prairie Potholes Environmental Impact Statement

Please refer to the May 27, 1981, telephone conversation between Larry Todd of this office and Don Ryan of your staff concerning Map 2 Allotments of the Map Supplement to the Draft Prairie Potholes Environmental Impact Statement (DEIS).

165

The lands within the boundary of the Lake Elwell should be removed from Allotment number 998 of the Water Resource Area and not considered for inclusion within your Allotment Management Plan. Tiber Dam and the dike are in this area, which is fenced and managed by the Bureau of Reclamation and, therefore, should not be included in the subject EIS.

Thank you for your cooperation.

James A. Rawlings

James A. Rawlings

cc: Don Ryan, Area Manager, Water Resources Area,
Bureau of Land Management, Havre, MT 59501

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35

UNITED STATES GOVERNMENT
memorandum

DATE: MAY 27 1981

REPLY TO ATTN OF: Rights Protection, Environmental Quality

SUBJECT: Review of Prairie Potholes Draft Environmental Impact Statement (DES 81/13)

TO: District Manager
District Office, BLM, Lewistown, MT

FROM: Area Director

164

This office has reviewed the subject environmental statement, which describes vegetation allocations and recommended grazing management programs for about 1.7 million acres of public lands. These public lands lie adjacent to or surround the four highline reservations in Montana.

We are concerned that management of these public lands should be somewhat in harmony with the management of Indian lands, in order that a balance of socioeconomic and management factors might occur. We believe that Alternative 8, the preferred alternative, provides that balance. Consequently, we have no comments to offer from a jurisdictional standpoint. It is suggested, however, that no management plans and projects are initiated on lands that are near the reservations that contact be established with the applicable Superintendent and Tribal Council.

Acting Area Director

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Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan
OPTIONAL FORM NO. 10
(REV. 8-80)
GSA FPMR (41 CFR) 101-11.6
5010-114

37a

STATE OF MONTANA

DEPARTMENT OF
FISH AND GAME
1420 East Sixth Avenue
Helena, Montana 59620
June 19, 1981

Mr. Glenn W. Freeman, District Manager
Bureau of Land Management
District Office
Airport Road
Lewistown, Montana 59457

Dear Mr. Freeman:

We have reviewed the Prairie Potholes Draft EIS, and on June 8 appreciated the opportunity to discuss our review with Messrs. Noble, Reim and Pointer of the Bureau of Land Management State Office in Billings.

Overall, we do not feel that one of the alternatives adequately address the problems facing the management of remnanted resources in Montana's public lands. We are especially concerned with the document's treatment of wildlife.

Attached are specific comments. Although we discussed our attached comments with Mr. Noble and company, we submit them for the record. We appreciated the opportunity to review this Draft EIS.

Sincerely,

JAMES W. FLYNN
Director

mk

Attachment

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37b

Comments by Montana Department of Fish, Wildlife and Parks
on EIS Prairie Potholes EIS dated March 23, 1981

(PP = Page Number, C = Column, P = Paragraph)

PP1-C1-P3: 166	This paragraph should read "The BLM is responsible for the management of the public lands in a manner that maintains or improves the basic land resources which are well, water and vegetation."
PP1-C1-P4: 167	Should read "The purpose of the EIS is to develop a management program to maintain or improve rangeland resources. The management program includes but is not limited to vegetation allocation among competing consumptive uses, implementation of alternative grazing treatments, or range improvements if absolutely necessary."
PP1-C2-P2: 168	We believe it is a fact not an opinion that resting plants from continuous grazing is beneficial to the plants.
PP1-C2-P5: 169	There is an necessity implied here that is questionable. A review of the NEPA (PP A18, Appendix 2.1, Vol. 2) does not adequately describe the degree of economic attainable nor does it substantiate that the degree of necessity implied is possible.
PP1-C3-P2: 170	How accurate sources of livestock numbers and periods of use and utilization currently being obtained? How often are such counts, use, and utilization obtained? Are the accuracy, use and utilization obtained from all allotments? It is not clear how this information is obtained, or how accurate it is.
PP1-C3-P3: 171	There seems to be unwarranted concern with overstocking (of livestock) in this paragraph and preceding paragraph. Assuming that current carrying capacities of the areas to be grazed by livestock has been determined with some degree of accuracy--stocking rates should not exceed the level of increase determined in EIS. Norman (1970) states "...assumption that plants can be grazed to a proper level through regulation of stocking to correspondingly because of the grazing habits of livestock."
PP5-C1-P2: 172	On PP 5-C2-P3 and on PP A10, Appendix 2.1 - Vol. 2 the MFWP was asked to provide an "intensive survey of public lands..." and to provide "the extensive inventory of wells and observation of the Prairie Potholes EIS area was conducted in 1970-78 using BLM's..(EIS?). The inventory included a total of 2.4 million acres: 1.7 million acres of public land and 800,000 acres of ... private and state land." The source mentioned in the "extensive inventory" is not adequate to conclude that the status and location of acreages proposed in weed treatment (i.e., chemical cropdrush control, water spreading, prescribed burning, etc.) would have been precisely located. Yet it is stated that the methods used did not specify either the locations or the acreages.
PP1-C1-P1: 173	Here again there seems to be unsatisfactory between the implied validity of the soil and vegetation inventory and what is actually available in terms of solid base facts?
PP1-C1-P2: 174	We would like to see a map of the proposed mechanical treatment areas. The EIS states treatments would occur on 281,000 acres and refers to the Appendix 2.4. This appendix gives 933,237 acres suitable for mechanical treatments. Which acres are you planning to do? Also, we would like to see a map showing riparian areas to be fenced.
PP1-C2-P4: 175	Will leafy spurge and prairie dog towns increase under rest/rotation grazing and multiple-use land management as described by Norway without being deliberately treated?
PP1-C2-P4: 176	Why are mechanical treatments initially considered in one of the alternatives? Norway (1970) states "Systems employing cultural treatments (spraying, furrowing, plotting, seeding, etc.), manage the range (under rest/rotation) for a few years to determine the exact need for treatments." Wouldn't it make sense economically to implement rest/rotation for some other grazing system first and then after a few years determine whether mechanical treatments were necessary?
PP2-C2-P2: 177	Same questions regarding noxious weeds and prairie dogs as in PP1-C2-P4.
PP1-C2-P5: 178	Refer to our comment under PP1-C1-P2.
PP1-C2-P5: 179	BLM has no basis to project a doubling of antelope and deer under this, or any alternative. What is the basis for projecting the increases in antelope production and numbers of deer under this?
PP1-C2-P5: 180	In our opinion, deer and antelope numbers won't double due to the NDP's--BLM should not be instructed.
PP1-C2-P5: 181	What is the basis for the decision to reduce prairie dog losses by 60 percent? We believe our department should be consulted on these decisions.
PP1-C2-P5: 182	This increase of money to recreation/wildlife related businesses would have to come at this alternative but due to increases in big game populations increasing from the low populations of the early 70's. Some slight increases may be noted in waterfowl-related sales.
PP1-C2-P3: 183	BLM has no information on which to base a projected threefold increase in deer and antelope! It should also be pointed out that the figures (Vol. 2, PP A16, Appendix 2.1) were not supplied to the BLM by the Montana Department of Fish, Wildlife and Parks! These figures were developed by BLM and we would like to know exactly how BLM arrived at those figures!
PP1-C1-P2: 184	Will security hay and dry wheat noxious weeds and prairie dogs spread if livestock grazing were eliminated? We would like to see the data used to support this statement.

37c

-2-

PP1-C2-P3: 185	The last sentence in this paragraph seems to contradict the first sentence in the paragraph.
PP1-C2-P4: 186	This is something is a bit. Not very many species would be negatively impacted from the elimination of cattle grazing. To say that prairie dogs would expand to a potential 230,000 acres is questionable, considering the findings of Sundquist which you quote on pages 77 and 78.
PP16-C2-P2 & 17: 187	If implementing alternative F results in the further deterioration of the public lands to you claim it will, how can you state that wildlife habitat for big game, etc. would remain unchanged? Please clarify this!
PP1-C2-P4: 188	If the range deteriorates further under alternative F, wouldn't the livestock also be disturbed at least through?
PP1-C2-P4: 189	In our opinion, rest/rotation seldom will effectively work on any size or well type.
PP1-C2-P4: 190	Norway (1970) described rest/rotation as an effective "treatment" for sloughgrass and as a suitable grazing system for all soil and vegetative types.
PP1-C2-P5: 191	The word "intensive" (line 3) as used here is synonymous with "overgrazing" or "continuous grazing." This is an improper use of the word because. Referring to your glossary (Vol. 2, PP2) rest/rotation is described as an "intensive system." Does this imply that rest/rotation will result in sloughgrass, blue grass and cactus dominating the area under rest/rotation?
PP1-C1-P7: 192	How much slower is rest/rotation than mechanical treatment in the central and/or reduction of sloughgrass or blue grass?
PP1-C2-P7: 193	Why percent of the annual actual use data was obtained by professional judgment?
PP1-C2-P7: 194	In order to adequately comment on the annual operation of the grazing systems referred to in this paragraph, a person would have to look at the grazing formula or system that is actually conducted on the ground. Would it be possible to obtain a brief tabular display of these??
PP10-C1-P3: 195	Did BLM actually determine that some wildlife in the EIS area was the riparian and woodland habitats? Where in Thomas and where did he do work referred to? This reference (Thomas) is at PP30 in the bibliography section of Vol. 2.
PP1-C1-P6: 196	Ninety-nine percent of the riparian habitat along 186 miles of streams is listed as being in unsatisfactory condition for wildlife. About 1,719 acres of high value riparian vegetation would not receive treatment and would decline or remain in poor range condition (PP5, Vol. 2). Only 18 miles of high value riparian zone vegetation is scheduled for improvement. This does not give adequate consideration to the riparian habitat. In view of the acknowledged importance of this type to wildlife.

37d

-3-

PP15-C1-P7: 185	The last sentence in this paragraph seems to contradict the first sentence in the paragraph.
PP1-C2-P4: 186	This is something a bit. Not very many species would be negatively impacted from the elimination of cattle grazing. To say that prairie dogs would expand to a potential 230,000 acres is questionable, considering the findings of Sundquist which you quote on pages 77 and 78.
P16-C2-P2 & 17: 187	If implementing alternative F results in the further deterioration of the public lands as you claim it will, how can you state that wildlife habitat for big game, etc. would remain unchanged? Please clarify this!
PP1-C2-P4: 188	If the range deteriorates further under alternative F, wouldn't the livestock also be disturbed at least through?
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37e

-4-

PP11-C2-P6: 196	Deer do not feed primarily on browse throughout the year. For example, many forbs are consumed in summer and grass in spring.
PP16-C2-P5: 197	The Montana Department of Fish, Wildlife and Parks has not "...provided a tenfold increase in mouse droppings...(PP5 and 1982)." The department's publication "Hunting for Tomorrow, 1974-1980" presents and discussions department objectives and goals. There is a lot of difference between a projection and an objective.
PP17-C1-P1: 198	The pronoun this reference should be Norway (1970) and not Norway (1973). If the latter is correct, no such reference is listed in the Bibliography section in Vol. 2.
PP21-C2-P3: 199	Sulfured and Norway did not use mechanical treatment would be more effective in reducing cholomes. No find no mention of cholomes at allm
PP21-C2-P6: 200	This is not necessarily true for woody species, see Norway (1970).
PP21-C2-P5: 201	Norway (1970) did not state "...that a single grazing system is not the best under all conditions." This is a misquote.
PP21-C2-P6: 202	This is only true if moderate grazing or a well-followed grazing system is implemented on the area.
PP21-C2-P6: 203	Will use of 3, A D and Tordon benefit wildlife? If so, how?
PP17-C1-P1: 204	Can the statement "Control of prairie dogs by grazing management alone is unlikely" be supported by your information? Retzer (1956) in his publication "Prairie Dogs, Ubiquitous and Blue Grass" has many interesting comments about this.
PP17-C1-P3: 205	Norway (1970) states "For greatest livestock production, the grazing season should encompass the green period, when forage has high nutritive value..." Hard pack in the summer at seed-ripe time." Therefore, gentle decrease on the vegetation interest and dries, and nutrescence generally provides, search, and secure, and attain be-known-deficient. Late in the season livestock usually lose weight."
PP19-C1-P5: 206	Norway does not recommend grazing the rested pastures first the following spring. He says that can moment of some during the rest growth period are the usually necessary for establishment of seedlings. The best pasture after rest is the pasture grazed the previous year. Grazing the rested area first or periods then. This additional "rest" is also recommended for deferred management as both Clements (1949) and Sandberg (1925).
PP19-C1-P2: 207	Do you have data to support the statement that "Overall ranges are in Western Montana of Fish, Wildlife and Parks exceed populations of elk?"

37f

-5-

F73-C1-F21 **208**	Do you have data that supports the statement that "Heating riparian vegetation 4-10 years would allow the vegetation to regain vigor and provide more habitat for big game and most other wildlife found in the EIS area"? Now's a rest/rotation system as described by Ramsey (1976) produce the same results?
F73-C1-F23 **209**	Their "proper alleviation" of cattle by land managers can be "improper" for species such as the sharp-tailed grouse. If you read FF 46-47 of Leonard Sieson's publication--The Sharp-tailed Grouse in Nebraska, you will find conclusions based on data which are opposite to the conclusions made and are made all through this EIS concerning "even" or "proper" distribution of livestock.
F73-C1-F24 **210**	Is the point being made that the increase in vigor makes up for the total loss of shrubs from the treatment?
F73-C1-F25 **211**	We find no instances in the literature where mechanical treatments have benefitted these species (sage and sharp-tailed grouse).
F73-C1-F26 **212**	We have found no instances in the literature where contour furrowing benefitted waterfowl--from what data were these conclusions drawn? You say within 5 miles here but on FF 4-24-27 you say additional water would occur within 0.3 miles--why the difference?
F73-C1-F27 **213**	Checking did not say this. Also, you forgot Hundinger in the bibliography.
F73-C1-F28 **214**	Jerzing never mentioned sagane wildlife in this publication.
F73-C1-F29 **215**	Are there data and/or literature to support these statements.
F73-C1-F31 **216**	This is not realistic. Projections are addressed elsewhere.
F73-C1-F32 **217**	To our knowledge there are no data that indicate that mechanical treatments have benefitted sharp-tailed and sage grouse. On the contrary, sage grouse have been negatively affected by the destruction of sagebrush due to mechanical treatments.
F73-C1-F33 **218**	Additional cover may be there but will it be used? Why the conflict between 0.3 miles here and 3 miles on FF38.
F73-C1-F34 **219**	How do you know when you are forming treatments...would provide sufficient...resident cover? Are you saying that residual cover will no longer be a limiting factor?

Volume 2

Appendix A.3 **220**	The long-term population projections for the various alternatives (Appendix A.3) do not indicate the species of wildlife on which they are based. Presumably, these apply primarily to antelope and mule deer and we believe they are best suited to antelope and unsuitable in long-term projections.

37g

-6-

221	In the case of mule deer, populations have already increased drastically in the past three-five years as the result of excellent production and survival plus general hook-and-by accesses. Present populations are already or at or exceed a desirable level in some of the better habitat in the prairie potholes area. Furthermore, the future "desirable" level may be dictated by such things as landowner tolerance and will largely be regulated by hunting season manipulations rather than alternative management systems applied by BLM.
222	Similarly for antelope, population numbers have and will be regulated by the hunter permit quota. Our management will be aimed at holding the population in each hunting district to a level that will reduce depredation to crops and heavy animal mortality during severe winters.
223	Attempting to project population numbers under each alternative for other wildlife species such as upland game birds is, we believe, a hopeless pursuit. The many unpredictables factors influence these species, we witnessed the devesting effects of the current drought on sharp-tail I grouse.
224	None of the above is meant to imply that the choice of alternatives described in the EIS is irrelevant to wildlife. On the contrary, our own research demonstrates the importance of land management decisions on the public lands, as for example the effects of rest/rotation grazing on wildlife. However, we wish to emphasize the difficulty in predicting any multiple increase in wildlife populations of whatever species, let alone describing such increases in any of the six alternative courses of action.
225	One of our main criticisms of this EIS is the way in which wildlife is used to justify (or at least support) the implementation of AM's, mechanical treatment on 175,000 acres of rangeland and the construction of reservoirs. We have yet to see demonstrated that these actions will benefit the grazing systems which BLM implements on their AM's and of value to any wildlife species or group of species, excluding waterfowl. Some wildlife species may have a negative impact on species which have a small home range and are subjected to "even use" on a pasture in a multiple pasture system due to their inability to move to areas which still contain cover and the attraction of species such as antelope to areas of "unused" use by Hansen's publication therein. The enlargement of reservoirs, alters, kill, etc., to cause previously "unused" or little used to be destroyed or modifying islands of vegetation which are of extreme value to these species. These projects should be evaluated very carefully instead of applying them on a broad basis such as this EIS attempts to do.

38

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
1860 LINCOLN STREET
DENVER, COLORADO 80295

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	AUTHOR
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JUN 2 1981

Ref: 8MO

Mr. Michael J. Penfold
State Director, Montana State Office
Bureau of Land Management
222 North 32nd Street
P. O. Box 30157
Billings, Montana 59107

Dear Mr. Penfold:

Thank you for the opportunity to review your agency's draft environmental impact statement on the Prairie Resources Vegetation Allocation. We have found the EIS to be well written and informative with the impacts from the various alternatives discussed and presented in a concise manner.

We would, however, suggest that Alternative A - "Enhanced Combined Vegetation Uses" be given consideration as the preferred alternative.

Specifically, Alternative A offers significant improvements in sediment yield, ecological range condition, condition of riparian vegetation, wildlife, recreation, livestock permitted, and fisheries compared to Alternative B. Along with these improvements to the long term environment of the area, Alternative A also offers a greater economic return to area ranchers.

According to EPA's rating system for draft EIS's, this statement is rated LO-1 (lack of objections - sufficient information). We do, however, recommend that Alternative A be given consideration as the preferred alternative. If you have any questions, please contact Mr. Gene Taylor in Helena at FTS 585-8488.

Sincerely yours,

Thomas Gehlen

Thomas Gehlen
Director, Utilities
Program Administrator

39

Advisory Council On Historic Preservation

1522 K Street, NW
Washington, DC 20005

Reply to:

Lake Plaza South, Suite 616
44 Union Boulevard
Lakewood, CO 80228

April 2, 1981

DIR.	ACTION
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APR 6 1981	BLM
LEWISTOWN, MONTANA	
DIST. MGR.	
ADM. OFFICER	
DIST. OFFICE	FILE NO.

Mr. Glenn V. Freeman
District Manager
Lewistown District Office
Bureau of Land Management
Drawer 1160
Lewistown, Montana 59457

Dear Mr. Freeman:

This is in response to your request of March 27, 1981, for comments on the draft environmental statement (DES) for Prairie Potholes.

Pursuant to its responsibilities under Section 102(2)(c) of the National Environmental Policy Act of 1969, the Advisory Council on Historic Preservation has reviewed the Bureau's DES and has determined that there appears to be no reason for the Council to comment at this time.

Sincerely,

Jan Nwias

Inez L. Weil
Chief, Western Division
of Project Review

RESPONSES TO COMMENTS AND LETTERS

1.

Community efforts and cooperation in support of public land management in the EIS area show up in the overall good range and wildlife habitat conditions and the stability of livestock operations. Because of this no changes are proposed in initial AUM allocations to livestock. However field checks and monitoring would be made to ensure that stocking levels are proper in the future.

2.

BLM studies in south Phillips County show that prairie dogs severely reduce productivity and range condition. No black-footed ferrets have been sighted in the EIS area in the last 50 years. Because of public comments and the impracticality of limiting prairie dogs to 40 acres per town, that figure has been dropped. Rather than manage a town at a certain size, prairie dogs will be managed under the Prairie Dog Management Plan (Appendix 3.12, page A-165 in the EIS). This policy allows problem towns to be eliminated if necessary after analysis of individual towns.

3.

Severe winters do reduce wildlife populations, including antelope. Changes in the morphology of the landscape from cultural development have also affected the migration of antelope. The proposed action would have very little effect on the overall pattern of land use other than through grazing management. This would produce more residual forage for winter use. Snow depths in severe winters, however, could make this forage unavailable for the antelope.

4.

Table 3.14 (page 50) shows the acreages of habitat provided by public, private and state lands in the EIS area. Although the proposals in the EIS dealt primarily with public lands, recognition of the entire wildlife picture must be realized to adequately portray the situation in the total EIS area. Highly productive private lands provide key seasonal forage and habitat to many game species. Most of the riparian habitat in the area is private land as are many of the key spring and winter areas for big game. Private lands also furnish a great deal of the drinking water, aquatic habitat and cover needed by many species. Many private landowners contribute to the support of wildlife by leaving brush cover along fencelines and stream courses and by giving feed (in the form of crops) and water to wildlife. Without this support wildlife goals in the EIS would most likely be unattainable.

5.

Alternative B proposes fencing 7 reservoirs. Water for livestock would be provided either by water gaps or by piping water to troughs below the reservoir dam.

6.

Deer and antelope populations have grown since 1940. Current populations are large after a period of comparatively low numbers in the late 70's. Many factors, including predation by coyotes, affect the populations of deer and antelope. BLM works through other Federal and state agencies to authorize coyote control on public lands where livestock losses have been documented.

7.

Grazing systems and range improvements would be used primarily to improve streambank conditions. Fencing would be used where there would be little opportunity to improve high value riparian zones with grazing systems.

Fencing would require maintenance but the long term benefits would improve water quality by stabilizing streambanks for both livestock and wildlife as well as improve water quality to downstream users. Increased riparian vegetation would provide more shade, rubbing areas and forage for livestock at the end of the 4-10 year rest period. Wildlife would also benefit from the added cover and forage. Maintenance of these fences would be the responsibility of the BLM.

8.

BLM has discouraged new fireguards and roads in the EIS area and retired many old ones. A number of concerns have led to this policy: (1) the routes often go up steep slopes, causing accelerated erosion; (2) weather conditions are usually such that the fireguard doesn't stop fire in areas where lightning is the main cause; (3) there have been few fires in the area, especially large ones; and (4) BLM's capability to fight fires has improved.

This policy is not totally inflexible. BLM is willing to examine the need for fireguards (and particularly maintaining the present guards) on a case-by-case basis.

9.

The issue of disposal of isolated tracts of public lands was outside the scope of the EIS; only vegetation allocation and associated grazing management actions were considered. Disposal is considered in BLM's land use plans.

10.

The cooperation of the grazing districts and associations represented by Mr. Inman will be extremely important in accomplishing the implementation of the proposed actions in BLM's Havre Resource Area.

11.

Alternative B was developed in response to public comment, BLM's expected budget and a realistic

appraisal of the management needed to reach the resource objectives. As stated on page 7 (paragraphs 1-4), the Preferred Alternative does not preclude developing additional or different AMPs in the future. Alternative B is a low level or low rate of development rangeland improvement program.

Alternative A represents the best mix of multiple uses between Alternatives C and D. Alternative B is a lower level program than Alternative A based on the resource objectives. Improvement of vegetation and wildlife habitat should result from Alternative B on most of the EIS area which is not already in good condition. This might ultimately be at a slower rate and at a lower total level than optimum but would meet the expected vegetation demands of all users proportionately.

12.

BLM would appreciate any contributions by the Hill County Wildlife Association towards improving maps of antelope habitat. These maps would be used during development of AMPs.

13.

On antelope and sage grouse habitat sagebrush would be maintained under the proposed action (see Objective 5, page A-5).

14.

The land treatments suggested by Mr. Stuker are the primary ones proposed in the EIS. Only very limited applications of plowing and reseeding would be expected with some crested wheatgrass converted to native range and some native range seeded to crested wheatgrass and alfalfa. This practice is recommended in allotments where current scattered patches of crested wheatgrass are hindering management (see page A-11, "Plowing and Seeding").

15.

Mechanical treatments are recommended to improve native range and seeded areas. A 27% increase in livestock forage on AMP allotments is projected by 2003 under Alternative B. This would be nearly a 15% forage increase for entire EIS area (page 96, paragraph 13).

16.

Alternative B would seek to build on past success using methods which have been in progress for the past 20 years. Local operators have been instrumental in these accomplishments. BLM needs their continued help and cooperation to initiate the actions in the Preferred Alternative.

17.

Studies of 186 miles of high value riparian areas indicate that 69% are in unsatisfactory condition. These studies are somewhat preliminary in that: (1) sampling intensity was low, one site being observed every two miles; (2) the vegetation on these mostly intermittent streams varies widely from site to site and there is much to be learned about their actual potential; (3) the apparent trend of riparian vegetation was not determined. In some cases unsatisfactory streambank condition was associated with good and excellent ecological range condition, indicating either that streambank recovery is slower than recovery of adjoining floodplains or that the potential for reaching satisfactory streambank condition is low on these sites.

An additional factor that may preclude establishment of streambank cover is the ephemeral nature of the streams. Most streams in the Prairie Potholes EIS area flow only from snowmelt and precipitation in the spring. Runoff is usually heavy and fast, scouring streambanks and channels. Few streams (if any) flow over bedrock; most flow through a mosaic of assorted stream-deposited material. As such there is little resistance to erosion because of the high peak flows in the spring. The fact that many stream channels are deeply incised, making the ground water table well below the actual streambanks, further inhibits riparian vegetative growth.

Factors considered in evaluating aquatic habitat and streambank conditions were: (1) water width and depth, (2) the ratio of pools to riffles, (3) the types of aquatic plants, (4) stream bottom composition, (5) streambank cover and stability, (6) riparian zone width, (7) accessibility, (8) water temperature, and (9) the percentage of stream shading. Vegetative cover and streambank stability are two major factors in evaluation of aquatic habitat quality. The form used to evaluate streambank stability has been added to Appendix 3.9 (see the "Revised Pages") to clarify the meaning of the condition ratings.

The stream channel stability evaluation is an ocular estimate of upper and lower streambanks and the stream bottom. This method sets various classes for each judgment parameter and combines them into an overall class of "excellent, good, fair, poor" for that particular reach of stream. It is through this method that 69% of the stream channels were rated as being in fair or less condition. It should be noted that this is a hydrologic evaluation. Although vegetative condition influences the ratings, the potential of the site was not considered in this method. Therefore, some stream segments rated as fair or poor in streambank stability may not (because of limited soil productivity and other factors) have the potential to reach a good or excellent stability rating.

18.

The Prairie Potholes EIS was prepared to assess the effects of alternative ways of allocating vegetation among various users; it does not, however, allocate

land use per se. Actual allocations of land use are made through the BLM Planning System in the old Management Framework Plans (MFPs) and the new Resource Management Plans (RMPs). As discussed on page 2 (item 2) existing MFPs were reviewed to use recommendations, decisions and directives that apply to vegetation allocation. The results of this review were brought forth as resource objectives for vegetation allocation (Appendix 1.2, "Resource Objectives Matrix"). The review showed that for an EIS of this scope (involving as it does three resource areas), some very broadly based objectives applying to vegetation allocation were needed if the EIS were to apply to the whole area. The MFPs dealt with both site-specific recommendations for specific drainages or coulees and broad-based recommendations to increase vegetation production overall and meet increasing demands. It was decided that a new set of resource objectives should be created from these MFPs, the professional judgment of the resource specialists and new legislation in the form of the Federal Land Policy and Management Act (FLPMA). These objectives were developed in the same manner as the old planning objectives or recommendations, i.e. a review of existing data, recognition of demands, public comment, resource needs, problem determination and the potential of the resource (in this case vegetation) to meet the demands being made on it. The resource objectives were submitted to the Area Managers for acceptance as objectives of the EIS, not as decisions.

The EIS examines the environmental consequences of various alternative ways of meeting the resource objectives. The key point here is that the EIS carries forth a proposed or Preferred Alternative for acceptance, modification or rejection in the Rangeland Program Summary that will follow the final EIS.

Neither time nor manpower permitted adhering to BLM's formal planning procedures which is in a transition stage between the old MFP and the new RMP process. Planning requirements were further complicated because both processes work with much smaller administrative units (resource areas or planning units) than the Prairie Potholes EIS area. Both processes also involve substantially more time than was available for development of this EIS, one reason the document does not purport to be a decision document nor a total land use plan (since only issues relating to vegetation allocation are considered). Following the final EIS and Rangeland Program Document, the existing MFPs will be amended to show the decisions made. It should be kept in mind that the EIS guides the development of activity plans (AMPs) and does not provide the specificity needed in an individual AMP. Actions in AMPs would be subject to additional environmental assessment and mitigation based on on-the-ground examinations.

The resource objectives and their rationales for both the accepted and rejected objectives are on file in the Lewistown District Office. The modified planning process was not included in detail in the EIS in order to reduce the size and complexity of the document. The results of the process are presented in the EIS, however, along with an outline of the procedures in its development. Also, the public involvement process is discussed in Chapter 5. This should perhaps have been presented earlier in the EIS or emphasized in the modified planning process outline.

19.

Selection of the six alternatives was based on several factors. According to CFR 1502.14, the alternatives should be reasonable, treated in sufficient detail for readers to evaluate their comparative merits, include an alternative not within the jurisdiction of the agency, include a "no action" alternative, determine the agency's preferred alternative or alternatives which should be identified in the final statement and include appropriate mitigation measures not already in the proposed action or alternatives.

The initial alternatives considered were No Action (as mandated) and No Grazing which is beyond the jurisdiction of BLM. From the modified planning process and resource objectives (Appendix 2.1), two additional alternatives were developed, one emphasizing livestock forage production and the other stressing wildlife and watershed improvement. While somewhat opposite in management direction, these alternatives include common methods of reaching respective goals because of soil potential and soil-vegetation interaction. A fifth alternative was developed to provide a middle-of-the-road or multiple use alternative that attempts to take the best of Alternatives C and D without emphasizing either. This was done to provide an alternative that shows BLM's mandate of multiple use management of public lands as directed by FLPMA. There are many common benefits and objectives that meet the needs of both of the alternatives on the extremes, i.e. the range condition objective would benefit watershed, riparian vegetation production, wildlife habitat, forage for some wildlife species and livestock forage production. These trial alternatives were submitted to the public for comment. Many comments strongly urged that things be left as they are, that multiple use management is desirable and that a large development program was not needed because of a lack of any critical problems overall. This assessment concurred with BLM's ecological range condition findings in the Prairie Potholes area.

Following public comments, a sixth alternative was added that simply considers the more significant problems and opportunities in the area. In comparison with Alternatives A, C and D, Alternative B is a low level

management program, using the historical rangeland program or AMP development rate that existed prior to the 1976 lawsuit.

Mitigation not included in detail in the description of the alternatives may be found in Appendix 1.2 which designates key soil subgroups and the recommended grazing or land treatments, levels of livestock use at proper use levels, conditions for mandatory grazing deferment by range condition, goals for management of riparian zones and high value streams, protection of fisheries, management of wildlife habitat areas and prairie dog towns, grazing treatments to protect riparian zones, water quality standards and visual and wilderness guidelines.

Appendix 2.1 outlines methods and developments for vegetation allocations, riparian fencing and rest, grazing treatments, mechanical treatments, range facilities, water developments, chemical control of noxious weeds, prairie dog control, monitoring, cultural resource protection and methods to determine visual impacts. Appendix 2.6 displays the criteria of rating allotments for AMP development. Appendix 3.12 outlines the Montana BLM prairie dog policy and Appendix 4.2 provides the *Memorandum of Understanding* between the BLM and the Advisory Council on Historic Preservation for protection of cultural sites.

It was felt that the letter and intent of CFR 1502.14 was being met. As to the relative high or low intensity of the Preferred Alternative, it is a matter of opinion; however, some key points should be examined: (1) there are over 900 allotments in the EIS area. The proposed action would result in about 18% of these allotments being managed under an AMP, including the 93 current AMPs. (2) a substantial part of the total costs involved in the proposed action (roughly 49%) is due to the mechanical treatments recommended. (3) research has shown the only feasible way to improve blue grama-clubmoss infested ranges is through mechanical treatment. (4) as discussed in the "Introduction," Alternative B (page 7), 95% of the 80% ecological range condition objective on public lands could be reached with Alternative B. (5) fifty-eight percent of the high value riparian zone would be included in allotments under AMPs having rest or deferred grazing treatments.

A more detailed discussion of allocations and mechanical treatments is provided in the following responses to comments in your letter.

20.

There are significant differences in benefits to wildlife and watershed between Alternatives D and C. These benefits are found on pages 17, 18 and 20 in the "Summary of Environmental Consequences by Alternative" Section and in the impact analysis in Chapter 4. Some of the major differences are as follows:

1. Livestock grazing would not be allowed in Alternative D until July 1. This would provide additional nesting cover for upland birds, waterfowl and nongame without livestock competition during the critical spring—early summer period. In Alternative C grazing could begin around April 15.

2. In Alternative D the 1,883 miles of shoreline around reservoirs, potholes and all other riparian areas would receive spring rest until July 1. In Alternative C this spring rest would not be provided except where spring deferment is proposed on allotments having 50% or more range in fair and poor ecological range condition.

3. All 186 miles of high value stream and associated streambank riparian zones would be fenced and rested for 4-10 years in Alternative D. No fencing for enhancement would be done in Alternative C.

4. In Alternative D all seeps below reservoirs would be fenced and rested from grazing to enhance water quality and create riparian areas which would benefit wildlife. In Alternative C no seeps would be fenced.

5. In Alternative D all 27 present fishing reservoirs would be fenced and rested while none would be fenced in Alternative C.

6. Current prairie dog towns would be maintained in Alternative D while in Alternative C they would be eliminated.

Other comparisons between these two alternatives in expected benefits concerning wildlife population increases, acres and miles of improved streamside riparian zones, recreational opportunities and red meat production are shown in the "Summary of Environmental Consequences by Alternative" Table, pages 17-24. This table does contain an error under the long term column for Alternative C. The table shows 1,721,841 acres of waterfowl habitat improving while the figure should be 1,621,741, the same as under Alternatives D and A. The reason is that under these three alternatives, 1,621,741 acres would be brought under AMP management and would show improvement. The rate of improvement and the degree of improvement would, however, vary substantially between Alternatives C and D. Improvement brought about by Alternative D would occur much faster and be of higher quality than in Alternative C, as is shown for riparian vegetation on the table.

In Alternative C the table shows the condition of 6,611 acres of riparian vegetation as static or slightly improving. Under the management proposals in Alternative D, the table shows all of the 6,611 acres improving in condition.

The relative merits of the mechanical treatments proposed in the EIS is discussed in a response to follow.

21.

Current permitted use is recommended as the initial or "target" allocation in the Preferred Alternative. This recommendation is based on the following rationale: (1) the present level of use was established in the 1960's using data on wildlife needs provided by the Montana Department of Fish and Game (page 48, paragraph 9); (2) eighty-five AMPs have been developed and monitored in the area which include 32% of the public lands (page 48, paragraph 6); (3) trend is static or upward on 96% of this AMP acreage (page 44, paragraph 4 and Table 3.9); (4) range conditions on allotments outside AMPs are comparable to conditions inside (Table 3.13, page 47). The allotments proposed for AMPs are in lower condition than present AMPs, while the potential AMP allotments not proposed for AMPs are in higher condition (present AMPs 60% good and excellent, proposed AMPs 42%, potential AMPs 74%); (5) actual use for these AMPs averages 3% under surveyed AUMs (see page 44, paragraph 4 and the "Actual Use Summary" following this response); (6) current stocking rates are lower than SCS range site and condition recommended rates (page 8, paragraph 2, Appendix 2.3); (7) public comment generally indicated that things should be left as they are because long time resource conservation practices in effect over the years have maintained or improved resource conditions overall on both public and private lands (page i, paragraph 5); (8) there is no data available to indicate a need for higher or lower stocking rates because of the unavailability of the Soil and Vegetation Inventory Method (SVIM) transect data (page 2, paragraphs 11, 12; page 3, paragraphs 1, 2).

Since there is insufficient data to catagorically claim that no allotment is currently understocked or overstocked, these proposed allocations are considered targets and as such would be checked in the field to verify their accuracy (see page 5 and Appendix 2.2).

The assertion that consumptive use by domestic livestock and wildlife does not exceed 50% is based on the 1960's range surveys (which established vegetation allocations on a proper use basis), comparison with SCS proper use stocking rates, clipping studies on comparison sites (Figure 4.1, page 75) and on actual use utilization and trend observed in the monitoring of the present AMPs over the past 15 years. The stocking level would be verified through continued monitoring.

Changes in allocations from actions proposed in the EIS would be made as monitoring revealed the necessity. Permanent increases in livestock use would be authorized only after temporary non-renewable use had been made for a period of years and utilization and trend studies verified that additional permanent forage was available (page 4, paragraph 8).

The current proportion of livestock and wildlife forage allocations provide for wildlife populations as estimated by the Montana Department of Fish, Wildlife and Parks during a period of high populations. Wildlife would also be allocated a proportionate share of all vegetation increases as shown on Table 2.1 based on the expected increases in their populations.

22.

BLM Manual 6740.23A (10/01/79) specifies that grazing systems and management practices be designed to give "riparian vegetation the protection necessary to maintain and restore habitat cover and diversity, shoreline-streambank stability, reduce sedimentation, provide water temperature ranges suitable for desirable aquatic life, and to meet State and Federal water quality standards." The manual further states that: "Grazing management procedures may include livestock management practices or protective fencing to exclude grazing use in riparian areas."

Proposals in Alternative B (pages 7, 10, 11) to maintain and restore riparian areas include rest and deferment grazing treatments, development of water sources on uplands, proper placement of salt, rubbing and shade, increases in desirable forage on upland areas from grazing and mechanical treatments, and protective fencing of selected stream segments.

The recommended method of restoring riparian vegetation with grazing management is to fence footslopes, fans and riparian zones into separate pastures to be grazed in the fall or in a sequence of rest and deferment, except where required treatments can be incorporated into an allotment-wide grazing system (page A-10). For the purpose of the EIS, it was estimated that 15% of the high value riparian areas in present and proposed AMPs (388 acres) would be fenced and rested for 4-10 years. The remaining 85% would be managed under a system of rest and/or deferment grazing treatments with other range improvement practices to provide for the maintenance or restoration of riparian vegetation and streambank stability.

In addition to the 388 acres of riparian vegetation proposed for fencing and rest, 7 reservoirs and 370 acres of seeps below reservoirs would be fenced and rested for 4-10 years.

It is recognized (page 76, paragraph 6) that response of woody vegetation to grazing management appears slow but that desirable forage plants on floodplains (soil subgroups 6 and 17) respond rapidly due to the productive nature of the soils. The Montana Department of Fish, Wildlife and Parks apparently supports rest rotation as a method of riparian management (see Comment #208 of the MDFWP letter).

All of the above measures would be considered as AMPs are developed. Selection of riparian areas to be fenced would be based on a site-specific analysis of the

AVERAGE ACTUAL USE ON PRAIRIE POTHOLES AMPs AS TABULATED MARCH, 1980

AMPs implemented over 10 years - pre-1970

Allotment Name	Number	Surveyed AUMs	Actual Use AUMs	% Change From Survey AUMs
Phillips RA AMPs				
Cow Creek	5329	526	461	-12.4
Forth Creek	5344	1,018	940	- 7.6
Second Creek	5345	833	796	- 4.4
Black Coulee	5363	536	655	+22.2
West Alkali	5387	3,940	4,205	+ 6.7
Rudolph Coulee	5388	1,425	1,403	- 1.5
Albert Coulee	5407	1,106	827	-25.2
Border	5001	525	527	0
North Woody Is.	5002	1,689	1,803	+ 6.7
International	5017	999	955	- 4.4
Slough Plainsview	5034	1,122	974	-13.2
Whitewater Plainsview	5038	242	243	0
Cap Coulee (Plainsview)	5085	136	161	+18.4
Woody Island	5051	2,792	2,746	- 1.6
Subtotals		16,889	16,696	- 1.1%
Valley RA AMPs				
Westfork Bluff Creek	4008	1,173	1,365	+16.4
Ichpair Creek	4708	2,963	3,078	+ 3.8
Upper Willow	4718	5,497	5,835	+ 6.1
Eagles Nest Coulee	4726	3,373	3,277	- 2.8
Upper Crow Creek	4000	1,024	1,042	- 1.8
Upper Bluff Creek	4002	963	1,113	+15.6
Upper Lime Creek	4078	633	639	+ 0.9
Lower Willow	4576	650	656	+ 0.9
Subtotals		16,276	17,005	+ 4.5%
Havre RA AMPs				
Zurich Bench	6111	1,208	1,036	-14.2
Riggin Grazing Association	6009	1,868	1,625	-13.0
Windbreak	6063	499	468	- 6.2
Subtotals		3,575	3,129	-12.4%
Totals for all Resource Areas for pre-1970 AMPs		36,740	36,830	+ 0.2%

1970-1972 AMPs

Allotment Name	Number	Surveyed AUMs	Actual Use AUMs	% Change From Survey AUMs
Phillips RA AMPs				
Whitewater Lake	5036	1,833	1,937	+ 5.7
Lone Tree Coulee	5037	1,883	1,950	+ 3.6
Upper Coop Coulee	5084	527	677	+28.5
Joe Bell Coulee	5087	2,760	2,703	- 2.0
Martins Coulee	5089	4,884	4,842	- 0.9
West Garland Creek	5109	2,198	2,238	+ 1.8
East Garland Creek	5110	2,114	1,888	-10.7
Little Cottonwood	5111	2,778	2,943	+ 5.9
Bend	5115	502	575	+14.5
Crooks Coulee	5339	781	754	- 3.4
Sage Creek	5437	610	579	- 5.1
Subtotals		20,870	21,086	+ 1.0%
Valley RA AMPs				
Davison Coulee (only one year's data)	4701			
East Rock Creek	4715	443	482	+ 8.8
Little Papoose Creek	4723	2,483	2,454	+ 1.1
Boxelder Coulee	4548	2,040	1,876	- 8.0
Miller Coulee	4574	2,467	2,254	- 8.6
Upper McEachran Creek	4700	1,859	2,014	+ 8.3
Coyote Creek	4563	1,340	1,322	- 1.3
Subtotals		10,632	10,402	- 2.2
Havre RA AMPs				
Bennett Coulee	6011	1,845	1,603	-13.1
Big Bend	6243	264	242	- 8.3
East Fork	6010	762	469	-38.5
Wood Coulee Common	6062	7,024	6,471	- 7.8
Mud Lake	6047	1,442	1,191	-17.4
Upper Woody Island	6022	596	595	0
Windmill	6067	268	223	-16.8
Silver Bow Association	6014	No data	No data	
Subtotals		12,201	10,794	-11.5%
Totals for all Resource Areas for 1970-1972 AMPs		43,703	42,282	- 3.3%

1973-1975 AMPs

Allotment Name	Number	Surveyed AUMs	Actual Use AUMs	% Change From Survey AUMs
Phillips RA AMPs				
Sunny Slope	5008	1,314	1,230	- 6.4
Dunham Coulee	5030	882	711	- 8.0
Lambing Coulee	5093	2,786	2,364	-19.0
Lamere Coulee	5096	2,225	2,229	0
West Flat Creek	5440	732	926	+26.5
Lower Alkali	5441	362	244	-32.6
First Creek Hall	5443	990	835	-15.7
Upper East Creek	5445	1,242	1,415	+13.9
Dog Creek	5454	292	319	+ 9.2
Beavers	5368	351	355	0
Half Way Coulee	5374	539	655	+21.5
Overflow Coulee	5415	2,614	2,680	+ 2.5
Whiterock Coulee	5417	2,621	1,705	-34.9
North Flat Creek	5427	3,481	3,235	- 7.0
Flat Creek	5439	1,470	1,326	- 9.8
East Fork Whitewater	5065	1,406	1,470	+ 4.6
Subtotals		23,307	21,699	- 6.9%
Valley RA AMPs				
Lower Crow Creek	4713	904	1,025	+13.4
Grant Coulee	4571	2,656	2,341	-11.9
Subtotals		3,560	3,366	- 5.4%
Havre RA AMPs				
15 Mile	6231	949	714	-24.8
30 Mile	6232	459	445	- 3.0
Horse Corral	6230	1,350	1,578	+16.9
Border (East)	6012	2,387	2,200	- 7.8
Border (West)		2,457	2,391	- 2.7
Lower Choteau Coulee	6055	481	331	-31.2
Hanson Flat	6071	1,134	1,052	- 7.2
Williams Ranch	6074	236	261	+10.6
Subtotals		9,453	8,972	- 5.1%
Totals for all Resource Areas for 1973-1975 AMPs		36,320	34,037	- 6.3%

1976-1979 AMPs

Allotment Name	Number	Surveyed AUMs	Actual Use AUMs	% Change From Survey AUMs
Phillips RA AMPs				
Spring Creek	5429	2,032	2,055	+ 1.1%
Valley RA AMPs				
Coon Coulee	4525	634	464	-26.8
Jones Coulee	4716	776	779	0
Upper East Fork Crow Creek	4003	997	955	- 4.2
Lower Bluff Creek	4022	1,033	1,116	+ 8.0
Anderson-Oivel	4041	3,981	3,456	-13.2
Eastfork Willow Creek	4053	2,634	2,219	-15.8
Upper Buggy Creek	4301	3,562	3,968	+11.4
Subtotals		13,617	12,957	- 4.8%
Havre RA AMPs	None			
Totals for all Resource Areas for 1976-1979 AMPs		15,649	15,012	- 3.9%
Summary of Totals				
Pre-1970		36,740	36,830	+ 0.2
1970-1972		43,703	42,282	- 3.3
1973-1975		36,320	34,037	- 6.3
1975-1979		15,649	15,012	- 3.9
		132,412	128,161	- 3.2%
AMPs not implemented				
Phillips RA				
Trueblood Coulee	5408			
Rhuematism Coulee	5428			
Upper Black Coulee	5432			
Havre RA				
Lohman Common	6075			

Resource Area Totals

Phillips Resource Area	Surveyed AUMs	Actual Use AUMs	% Change From Survey AUMs
41 AMPs Evaluated			
Pre-1970	16,889	16,696	- 1.1
1970-1972	20,870	21,086	+ 1.0
1973-1975	23,307	21,699	- 6.9
1975-1979	2,032	2,055	+ 1.1
	63,098	61,536	- 2.5%
Valley Resource Area			
24 AMPs Evaluated			
Pre-1970	16,276	17,005	+ 4.5
1970-1972	10,632	10,402	- 2.2
1973-1975	3,560	3,366	- 5.4
1975-1979	13,617	12,957	- 4.8
	44,085	43,730	- 0.8%
Havre Resource Area			
Pre-1970	3,575	3,129	-12.4
1970-1972	12,201	10,794	-11.5
1973-1975	9,453	8,972	- 5.1
1975-1979	None	None	
	25,229	22,895	- 9.3%
Total	132,412	128,161	- 3.2%

current condition and value and the feasibility of reaching the desired condition with grazing management. Some allotments are well suited for management systems that benefit riparian areas, but others are too small to allow such a system to be instituted. In the 186 miles of high value riparian zones there is more potential for response to management as well as areas with a greater need for protection. The areas selected for fencing would be those with the greatest value and the least potential for improvement with grazing management alone.

Alternative B (BLM's Proposed Action) is a low level program based on public comment, anticipated funding and the impact analysis which showed that this alternative would bring significant improvements in resource conditions in a more cost-effective way than other alternatives (page 7). Intensive management is proposed only on the 93 current AMPs and 70 new AMPs in the short term. The alternative does not preclude BLM from making management changes in the short term (the 7 year initiation period) to solve problems in areas outside the allotments proposed for intensive management, nor is BLM precluded from developing AMPs beyond the short term period (page 7, paragraph 4).

As explained on page 7 (paragraph 4) and Appendix 2.6 (A-127), the 70 proposed AMPs were selected by a rating system that considered the size, range condition, potential productivity and wildlife habitat values of the allotment. The most important factors were the allotment acreage and range condition. High value riparian habitat in an allotment added 10 points to its rating while the floodplains soil subgroups (6 and 17) added 20 points (if dominant). Of the 121 allotments with high value riparian zones, 31 are presently AMPs and 12 are proposed for AMPs. These 43 allotments have 2,594 high value riparian acres. The 78 remaining allotments (1,915 acres of high value riparian acres) are either small or already have riparian zones in good condition so they have a low priority as AMPs. They will be considered as potential AMPs.

23.

It is very important to understand the general landscape of the Prairie Potholes region and the physical forces that created these prairie uplands as discussed in Chapter 3. Areas proposed for mechanical treatments consist of broad, nearly level, expanses of terrain dominated by low growing grasses and forbs (mainly blue grama and clubmoss) with very sparse shrub cover. Mechanical treatments on suitable soils are proposed to increase vegetation, particularly to improve wildlife habitat and livestock forage. Proposed mechanical treatments are contour scalping, contour furrowing, chiseling and pitting.

Selection of the method of mechanical treatment (see Appendices 2.1 and 3.2) is dependent on the characteristics of the particular soil subgroups. Scalping (on the contour) removes alternate strips 10-25 inches wide of native vegetation, leaving undisturbed native vegetation between. This mechanical treatment is recommended on soil subgroup 1 (on slopes up to 12%) and on soil subgroups 5, 8 and 9 (on slopes up to 8%). An alternative to scalping is pitting which forms shallow pits in the soil surface for catching and storing precipitation. Pitting is applicable on soil subgroups 1, 5, 8 and 9. These two mechanical treatments differ in the severity of surface disturbance and in the rate of nutrient cycling. The greatest vegetation response would occur on sites receiving the scalping treatment.

Contour furrowing is similar to scalping except that the furrows are "U"-shaped and between 6-12 inches in depth. Furrowing is recommended on soil subgroup 2 (on slopes up to 8%). Chiseling is an alternative to either scalping or contour furrowing. This method uses standard shallow tillage of the soil to allow establishment of desirable vegetation. Chiseling is proposed on soil subgroup 1 (on slopes of up to 12%) and on all other suitable soils with slopes less than 8%. Native plants or alfalfa (where needed) will be interseeded on all treated sites. Since the EIS does not recommend treatments for specific sites, the mechanical treatment to be used would be determined after BLM resource personnel evaluate a site in consultation with livestock operators, landowners, Montana Department of Fish, Wildlife and Parks and other affected parties.

The areas given top priority for mechanical treatment are suitable soils dominated by clubmoss and blue grama. Clubmoss and blue grama, part of the climax vegetation in the EIS area, are found primarily on silty, clayey, sandy and claypan sites on terraces, fans and uplands. Both species increase slowly in density with heavy grazing pressure over a period of years. As stated by Ryerson (Ryerson 1970), there is a definite tendency to find clubmoss on ranges in fair to good condition. Once established clubmoss diminishes very slowly even under the best grazing management (Chapter 3, page 43).

Undoubtedly the clubmoss-blue grama association was a factor long before domestic livestock arrived. The density of this association in relation to more desirable species is an indicator of past use and current ecological condition. The clubmoss and blue grama association does not indicate that woody and riparian areas have been severely abused or eliminated. A dense cover of clubmoss and blue grama with limited composition of decreaser species indicates past heavy grazing.

The need for mechanical treatments has been demonstrated on the 93 present AMPs, which have been in

operation from 5-15 years. The soils on these AMPs have shown a very slow response to rest rotation, some clubmoss-blue grama sites having been rested for 60 years with no increase in production (Ryerson and Houlton, 1980, Northern Montana State Agricultural Experiment Station, Personal Communication). The land treatments recommended are based on soil capabilities (see page 26 and Appendix 3.2).

Mechanical treatment of clubmoss-blue grama prone soils will bring dramatic improvement in 2-4 years. Rest rotation will only slowly improve these sites—more than 15 years would be needed to improve range condition significantly with a grazing system alone. Rest rotation and deferred rotation are recommended to maintain and improve the condition and productivity of areas after treatment. Mechanical treatments are not proposed for sagebrush communities.

BLM's proposals to bring about greater vegetation production through mechanical treatment of clubmoss-blue grama rangeland are based on 18 years of research in the Prairie Potholes EIS area by range scientists of Montana State University.

It should be noted that wildlife habitat is very limited on these prairie uplands. Broad expanses of terrain with little or almost no browse of any kind are typical of the areas proposed for treatment. These expanses provide little cover for upland birds, waterfowl or for deer and antelope. The proposed mechanical treatments would create a rough ground surface and, along with the introduction of alfalfa as part of the seeding mixture (as recommended on page A-11), an increase in forbs, both of which are very desirable for wildlife. Native forbs would also increase along with significantly more desirable grasses as a result of these treatments.

Studies by Ryerson (Ryerson et al. 1970) and field observations by John Grensten in 1973 found that sage grouse, sharp-tails, waterfowl and many nongame animals nested and inhabited mechanical treatments in the EIS area.

The plowing and seeding of crested wheatgrass is also proposed on selected sites in the EIS area. Crested wheatgrass can be a valuable management tool which provides early spring forage while native range is deferred. Wildlife may not benefit significantly from the crested wheatgrass seeded areas, but they will benefit from deferment or improvement of the native range.

As mentioned on page 37 (paragraph 2) unfenced crested wheatgrass stands intermingled with native range are a problem in the EIS area. Often these patches aren't big enough to make a usable separate pasture or there is a small amount of native range in the crested wheatgrass pasture which receives heavy use. The situation varies widely from allotment to allotment and undoubtedly solutions would vary when AMPs were designed.

The amount of crested wheatgrass seeding is anticipated to be minor (page A-11, "Plowing and Seeding"). It is also proposed to return some of the scattered, unfenced crested wheatgrass stands to native range plants if this met the objectives of an AMP.

Development of 450 water sources would allow livestock to graze areas that are presently only lightly used. Placement of these water sources would take into account wildlife habitat needs (see Objective 7, page A-6). Reducing livestock grazing pressure on riparian areas through the development of upland water sources would improve habitat conditions for wildlife. Wildlife and livestock presently coexist on the same rangeland. Development of water sources expands the grazing area of livestock, decreasing the degree of grazing on individual sites. This would help maintain cover and food for wildlife in the most productive area, the riparian zone. Important upland habitat sites, such as strutting grounds, would be avoided as sites for locating new water sources. New water sources would also supply new habitat to wildlife, increasing duck and goose populations and, if reservoirs are constructed for fish propagation, increasing the current fisheries resource.

Fencing is proposed as a management tool to regulate livestock grazing within an allotment to protect soil and vegetation resources. The miles of proposed management fences in the Preferred Alternative is based on a worst-case estimate so the miles of fence built could be considerably less than the figure given on page 11 of the EIS. All fences would be of the antelope type, constructed of 3-4 strands of barbed wire (see page A-11, "Fences"). A 5-6 wire fence would be used around fisheries reservoirs and streamside riparian areas. As stated in the EIS, (page 79, paragraph 3) movement of deer and antelope would not be hampered by the use of standard antelope-type pasture fences necessary to initiate grazing systems. Fences would also provide perching sites for predators and other birds.

All land treatments would be cleared before implementation with the Montana Department of Fish, Wildlife and Parks (MDFWP) to insure adequate attention had been given to wildlife needs, according to the *Memorandum of Understanding* between the BLM and MDFWP which provides for a two year consultation period. (See Appendix 2.1, page A-11, "Methods and Range Developments".)

In addition to the methods described in the EIS to achieve various resource objectives, other land treatments were analyzed by the interdisciplinary EIS team in the Preliminary EIS. These treatments included chemical sagebrush control, water spreaders, wildfire management and prescribed burning, burning, haying and mowing, and fertilization of crested wheatgrass. These treatments were not proposals but possible methods to achieve resource objectives. Because of

the lack of identifiable locations and acreages, these treatments were dropped from specific analysis in the EIS. The basic impacts from these treatments are summarized below. A detailed assessment of the effects of these treatments would be completed before application. The environmental assessment would state the type of treatment, the location of the area and its size as well as studying the impacts of the treatment.

Chemical Sagebrush Control

Consideration was given to application of herbicide to open dense stands of sagebrush on soil subgroups 2, 4, 10 and 11. The target species for treatment would be primarily big sagebrush. Other broad-leafed species and some forbs could be affected if they occurred in the treatment area. Areas considered for treatment are characterized by a high composition of big sagebrush and a potential for increased production of grasses. Spraying would not be undertaken to eliminate large sagebrush stands but rather herbicide spraying would be applied in meandering strips to create open areas within dense sagebrush stands.

A low volatile ester of 2,4-D in liquid form with a water carrier would be used. It would be applied as an aerial spray by either a fixed-wing aircraft or a helicopter, at the rate of two pounds acid equivalent per acre. The time of application would be early or mid May. Safeguards to be employed include application during the cool part of the day (morning and evening) to maximize effectiveness and minimize drift; application when wind is calm (or less than 8 miles per hour) to minimize wind drift; leaving buffer strips of 0.5 mile or more from live water and agricultural land; compliance with all state and Federal laws governing herbicide application, including use of state licensed commercial pesticide applicators; and removal of all livestock from the treatment area during application and for a period of two growing seasons following application.

The herbicide 2,4-D is widely used and has been proven effective for the control of sagebrush. It is not on the Department of the Interior's list of herbicides prohibited for use on rangelands. This herbicide, like 2,4,5-T is an auxin type herbicide. However, unlike 2,4,5-T, it does not contain the contaminant TCDD and is classified as moderately toxic. In some laboratory tests, however, 2,4-D has been demonstrated to have potential chronic (long term) effects such as teratogenicity (malformed fetuses), toxicity to bird fetuses and carcinogenicity. These side effects are not substantiated under field conditions. The herbicide has a half-life of approximately one month and after six months no significant residues would be expected to exist.

There would not be 100% kill of dense sagebrush stands. Creating these open areas would reduce competition for soil moisture, allowing establishment of vigorous stands of native grasses and forbs. Increased infiltration under grass and forb cover would lessen runoff and erosion and more forage would provide additional consumptive vegetation for some wildlife and livestock. Some wildlife habitat would be lost, particularly shrub cover for game birds and antelope. If spray inadvertently entered surface waters, loss of aquatic organisms could result.

Water Spreaders

Water spreaders were considered on highly erosive soils with unstable stream channels to reduce the velocity of runoff water and reduce sediment loads of streams. Spreading water over large areas would help stabilize stream channels, reduce suspended and bedload sediment in waters and promote growth of grasses within the water spreader system. This method would be given consideration in cases where other methods to reduce erosion and stabilize stream channels failed. Positive benefits to all resources would accrue with improved vegetation cover.

Burning, Haying, Mowing, Fertilization of Crested Wheatgrass

These methods were considered primarily for improving the vigor of present crested wheatgrass stands. Burning in the spring of the year would remove rank old growth and allow new grasses to sprout and grow unrestrictedly. Mowing would likewise remove rank vegetation. Haying would be similar to mowing except that crested wheatgrass would be removing, leaving less organic matter on the soil surface. Fertilization would promote vegetation growth and help produce plants highly palatable to grazing animals. Fertilizer application possesses the potential for nutrient enrichment of surface waters if applied during periods of heavy rainfall in the early spring. Adverse effects on any resource would be minimal. Increasing forage for livestock use in early spring would reduce early season use of floodplain and riparian wildlife habitat.

Wildfire Management

Wildfire management is beyond the scope of the Prairie Potholes EIS. Fire management plans with an environmental analysis would have to be developed before any prescribed burning or modified suppression. Consideration would be given to allowing natural wildfires to burn through areas with low productivity of desirable plants to increase production of desirable vegetation. This is a high-risk consideration since fires can escape and damage other areas, including ranches and range facilities. Wildlife habitat, especially game bird nesting and brood rearing cover, would be lost if fires were allowed to burn large areas. It is impossible to predict where wildfires will start or how large the fires will get. Prescribed burning would have the same results as wildfire.

Rangeland Fertilization

Fertilization of native range was considered to increase the productivity and palatability of native vegetation. Heavy applications of fertilizer on clubmoss-blue grama sites act as a herbicide causing the destruction of clubmoss. Eutrophication of reservoirs and streams could occur if fertilizer were applied directly to waters or reached surface waters during periods of runoff.

24.

Eighteen black-tailed prairie dog towns covering 1,715 acres are scattered throughout 1.75 million acres of public lands in the EIS area. Nearby areas in the Missouri Breaks EIS area and the C.M. Russell National Wildlife Refuge contain 246 dog towns of more than 18,000 acres. These prairie dog towns provide habitat for a variety of other wildlife species.

Koford (Koford 1958) reported that over 30 animal species are associated with, but not dependent upon, black-tailed prairie dog towns. The black-footed ferret, golden eagle, burrowing owl and mountain plover are more often found on prairie dog towns than in other areas but the last three are also found in the EIS area outside of prairie dog towns. In South Dakota black-footed ferrets are also associated with Richardson ground squirrel colonies (Henderson et al. 1969). As stated on page 57 of the EIS, there have been no confirmed ferret sightings in the last 50 years in the Prairie Potholes area.

The Black-footed Ferret Recovery Plan (Linder et al. 1978) recommends a minimum of eight prairie dog towns per township to provide habitat for the black-footed ferret. Of these eight towns, at least two should exceed 100 acres, the remainder at least 30 acres each. This type of habitat does not exist in the EIS area.

Although there are serious problems south of the EIS area, a significant prairie dog problem does not now exist in the Prairie Potholes area. BLM is concerned with the potential for expansion. If expansion occurred similar to that in the Buffalo Gap National Grasslands, black-tailed prairie dogs would be a serious problem in the EIS area in the future. If prairie dogs could be kept in check with control and improved grazing management, it might never materialize. If the problem does develop, however, it would cost the taxpayer about $5,000 today or possibly over $1 million in the long term, assuming $4.50 per acre for control on the 239,000 acres of public lands projected to be infested with prairie dogs by the year 2001.

While studies in South Dakota (see the list following) are incomplete, data indicates an increase in grass and forbs on prairie dog towns. Clipping studies conducted by BLM in the Missouri Breaks EIS area adjacent to the Prairie Potholes show significant decreases in forage production inside prairie dog towns. The results of this study are as follows:

	Lbs. Vegetation/Acre	
	Phillips Soil	Elloam Soil
In Prairie Dog Towns	233	186
Adjacent to Towns	592	528
Comparison Area	820	516

In south Phillips County BLM has found that once prairie dogs establish, they will increase under any type of grazing system. Prairie dog towns in the EIS area are on soils which would not respond fast enough through grazing systems alone to provide a vegetative barrier that would inhibit the spread of prairie dogs to new areas (page 120, paragraph 4).

Studies by Craig Knowles on the C.M. Russell National Wildlife Refuge indicated that 85% of the black-tailed prairie dog towns were a result of a soil disturbing activity (reservoirs, landfill, plowing, road maintenance). When prairie dogs spread it is along existing roads and trails.

Vegetation management, either through grazing or mechanical treatments or both, could theoretically control the establishment of most new prairie dog towns. Livestock concentration areas around reservoirs, salting areas and oilers would continue to provide habitat for the establishment of prairie dog towns, however. Roads and trails connecting concentration areas would provide routes that could be followed by prairie dogs during new pioneering efforts. Once prairie dogs established a new town, they could maintain or increase the size of the town even under proper management of livestock grazing on the Phillips-Elloam soils on which nearly all towns are found.

A primary objective of this EIS is to have 80% of the range in good or excellent ecological range condition. It is clear that prairie dogs reduce vegetation production not just for forage for livestock but also for wildlife forage and cover, and for watershed protection. Denuded prairie dog town sites inhibit the infiltration of water, causing more surface runoff. This runoff produces offsite erosion of fragile soils on sloping to steeply sloping landscapes characteristic of lands adjacent to prairie dog towns. Erosion of valuable soil resources reduces the productivity of the range and also contributes large quantities of sediment to wildlife/livestock reservoirs and streams.

Control of prairie dogs is proposed because of vegetation removal, excessive runoff and erosion, reduced wildlife cover and the potential for expansion. BLM does not propose reductions in the prairie dog population simply because of reduced forage for or competition for forage with livestock, but to meet the multiple use objectives found in Appendix 1.2 (page A-2).

The Montana BLM Prairie Dog Policy as of April 1980 (Appendix 3.12, page A-165) will be followed in the management of black-tailed prairie dogs. The 40-acre maximum size was used to assess impacts only. The

size limit will be dropped. An assessment will be made of each prairie dog town in the short term and all problem towns will be identified.

The following is a list of the prairie dog studies mentioned above:

Henderson, F.R., Springer, P.F. and Adrian, R. 1969. *The black-footed ferret in South Dakota*. South Dakota Department of Game, Fish and Parks, Pierre, South Dakota.

Hillman, C.N., Linder, R.J. and Dahlgren, R.B. 1978. Prairie dog distribution in areas inhabited by black-footed ferrets. In *Black-Footed Ferret Recovery Plan*. U.S. Fish and Wildlife Service, Laurel, Maryland.

Koford, C.B. 1958. *Prairie dogs, whitefaces, and blue grama*. Wildlife Monograph No. 3. Wildlife Society, Washington, D.C.

United States Forest Service 1980. *Prairie dog-cattle-vegetation interactions under a season-long grazing system in the Northern Great Plains: A progress report*. USDA, Denver, Colorado.

25.

Monitoring is generally discussed in Chapter 1 (page 4). Several key points are reemphasized here.

1. Monitoring would depend on the intensity of management.

2. Procedures, frequency and types of monitoring studies used would be tailored to the resources involved in the particular AMP.

3. Monitoring is a key element in determining if AMP objectives are being met and is a tool for making needed changes.

4. Monitoring would be accompanied by periodic evaluations and changes in management if necessary.

The discussions in Chapter 1 and in Appendix 2.1 ("Methods and Range Developments", page A-10) both refer to the development of monitoring plans specific to individual allotments. Following the final EIS and the Rangeland Decision Document, a monitoring plan would be developed that provides more specific detail than this EIS. Both documents would be subject to public scrutiny and be updated as necessary.

The cost estimates of monitoring were given by alternative in the "Social and Economic Impacts" Section in Chapter 4. This study is limited to the 7 year implementation period and deals primarily with increased employment to monitor and develop a particular alternative.

Until an alternative was selected and a monitoring plan adopted, the actual cost of monitoring cannot be estimated beyond the short term.

According to the recent Draft State Director Guidance for Resource Management Planning in Montana and the Dakotas (August 1981) emphasis would be placed on monitoring on-the-ground actions rather than inventories. Rangeland monitoring should be considered as a recurring base-level activity which must be supported at all levels of management so that it is not sacrificed when funding and manpower are tight.

Primary vegetation monitoring studies are composed of reports on actual use, utilization condition and trend and weather.

The monitoring plan chosen would at the minimum outline allotment categories (based on resource values and conflicts) and the level of monitoring needed for each category, including methods, the priority of the studies, and the intensity and frequency of monitoring needed for each category. AMPs would display monitoring intensity levels specific to allotments, including the location of the studies and records of all studies conducted in the allotment.

The monitoring plan for the adjoining Missouri Breaks EIS area would serve as a model for the Prairie Potholes EIS monitoring plan. The Missouri Breaks plan ranked allotments into "Situation A, B and C" according to the relative resource values and problems. The following summary of the Missouri Breaks monitoring plan shows the methods that would be used in each category. (The Missouri Breaks monitoring plan is available at the Lewistown District for public review.)

As you have no doubt observed, funding is the key to conducting a monitoring program. BLM is committed to adequate monitoring to meet EIS or multiple use objectives.

26.

A spirit of useful cooperation between state grazing districts and BLM is certainly desirable especially with the intermingled land ownership pattern in the EIS area.

27.

The costs of implementing Alternative B are spread much the same as is shown for Alternative A in Appendix 2.5 (page A-126). The basic range management objective is to improve the ecological range condition to 80% good condition or better. To meet this objective on clubmoss-blue grama ranges, mechanical treatments and improved grazing systems and facilities are needed. As you will note, the most expensive item in the appendix is for mechanical treatments (including cultural clearances). Estimates were based on current costs; given the present rate of inflation, the ultimate cost would undoubtedly be higher. The costs would be outweighed by the benefits in improved range, watershed and wildlife habitat condition, as well as in more forage for livestock and wildlife. The economic study (pages 100-101) demonstrates the positive benefits of these expenditures.

SUMMARY OF THE MONITORING PLAN

FOR THE MISSOURI BREAKS EIS

MONITORING AREA

Monitoring Activity	Existing AMPs	Situation A	Situation B	Situation C	Non AMPs	Special Watershed Areas	Special Wildlife Areas	Comparison Areas
A. Vegetation and Wildlife Monitoring Methods								
1. Actual Use	XX	XX	XX	XX				
2. Utilization	X	X	X	XX				
3. Climate	XX	XX	XX	XX		X	X	
4. Trend Studies[2]								
a. Photo Plot SVIM Transect	X	X	X	XX[3]			X	X
b. Stero Photoplots	X	X	X	X		X	X	X
c. Canopy Coverage Method	X	X	X	XX[3]		X	X	X
d. Vegetation Profile Board (Riparian Areas)		X	X	X		X	XX (Riparian Areas)	
e. Low Level Aerial Photography	X	X	X	X				
f. Maintain Parker 3-Step	XX[1]							
g. Maintain 3-foot x 3-foot Plots	XX[1]							
h. Photo Evidence	XX	XX	XX	XX	X	X	X	X
B. Allotment Inspection/ Supervision	XX	X	X	XX	X			
C. Wildlife Studies								
1. Fisheries							XX	
2. Nongame		Complete transect when doing vegetation studies.						
3. Game		Census data from the Montana Department of FW&P.						
D. Cultural Resources				XX				
E. Watershed								
1. Soil Movement Loss				XX				X
2. Available Soil Moisture								XX
3. Infiltration/Runoff				X				X
4. Sediment Yield				XX		XX		
5. Water Yield						XX		
6. Water Quality						XX		
F. Livestock Production	X			X	X			

LEGEND

X - Optional
XX - Required

1. Only if found to be suitably located.

2. At least one of the optional trend methods must be used on each AMP implemented. Also, existing AMPs must have valid study methods.

3. Select only one of the required trend study methods in Situation "C" Allotments.

Source: Missouri Breaks EIS, BLM.

BLM encourages contributions of funds, equipment or labor by range users for the development of cooperative management. For the purposes of the EIS the value of such private contributions could not be predicted, so the total costs of range improvements were shown as government expense.

28.

Historically wildlife funds have been very limited. Range improvement funds have also been used to improve wildlife habitat, i.e. for goose nesting islands in reservoirs. Wildlife funds were also often "tacked on" to a livestock or watershed reservoir to construct an island.

In the past two years the Lewistown District has received a total of $600,000 in wildlife funds in addition to the regular program. This money was added on by Congress to be used primarily for the construction of waterfowl projects in the Prairie Pothole Habitat Management Plan (HMP). The main objective of the money was to improve wildlife habitat, but the Lewistown District was instructed to coordinate project planning with range management and watershed needs.

To date 76 reservoirs and ponds for the HMP have been built and numerous maintenance projects have been completed in the EIS area. All of these water projects are available to livestock (where fenced, the water is piped to a tank). Just as every livestock pond is not good for wildlife, every waterfowl pond is not a good livestock pond. The location of these waterfowl ponds is not always ideal for livestock but, where possible, ponds are located to fit the needs of both uses.

29.

This is not entirely true. Public mineral and timber resources are sold at fair market value. Comparable rates for grazing fees in 1980 are as follows:

Public Lands—BLM	$2.36/AUM
Montana State Land	$3.64/AUM
Private Land (Average)	$9.40/AUM

Source: United States Department of Agriculture. 1980. *Farm Real Estate Market Development.* Washington, D.C.

30.

BLM staffing levels and workload are in response to the passage of numerous acts and subsequent regulations that require considering, from different aspects, each proposal made by BLM or users of public lands. For instance, cultural resources, wilderness, rare and endangered species, riparian/wetland management, wild horses, visual resources and off-road vehicle use, to name a few, must be considered in environmental assessments. These aspects have always been an element of public land management in the past but now require special consideration under regulations and policies. BLM has had to expand rapidly to handle this additional workload and, in some areas, management inefficiencies have resulted that occur with rapid expansion of any agency or private business.

31.

Changes would not be designed to benefit wildlife only. Changes in AMPs would be for increasing vegetation production and reducing water runoff and erosion as well as for improving wildlife habitat in a multiple use management program.

The grazing regulations specify that AMPs can only be developed or revised after "careful and considered consultation, cooperation, and coordination" with affected permittees and, where affected grazing districts and state government (CFR 4120.3(a) and (c)).

It is recognized that nearly all (96.2%) AMP acreage is static or slowly improving in range condition under present management. In designing the various alternatives to meet multiple use objectives, however, range improvement practices proposed on other allotments could not be overlooked.

The word "revision" applied to all 93 current AMPs is possibly misleading. The revisions anticipated are range improvement projects (more water, scalping, chiseling, riparian fencing, etc.), not changes in grazing systems. Changes of this sort might be necessary in some cases to meet multiple use objectives, but the changes anticipated are those that would be made anyway to accomplish the desired range improvement.

The discussion about range condition and trend in Chapter 3 ("Vegetation", page 37) was intended to point out that most of the area has not responded well to grazing management systems alone. In order to bring about the improvement in range condition class, mechanical treatments on clubmoss-blue grama sites are necessary. These are highly beneficial to forage production. Rest rotation systems, such as those now in effect, are ideal for providing the necessary 1½ year deferment (Ryerson 1970) following treatment. For this reason present AMPs would be the first areas to be mechanically treated, if necessary.

32.

Hunting and fishing (to some extent) are the major recreational uses of public lands in the Prairie Potholes EIS area. Not only can recreational and livestock use co-exist, but certain actions, such as the construction of reservoirs, have benefited recreationists by providing additional fisheries, distributing wildlife and providing new habitat for waterfowl. A situation where both wildlife use and livestock grazing receive equal consideration is very desirable from the viewpoint of the majority of recreationists who use public lands.

33.

While some negative impacts to livestock are expected because of proposed management practices and improvements, the net effects on livestock would be beneficial (pages 78, 96 and 97).

The mass grouping of reservoirs for waterfowl is not proposed in this EIS. Benefits for waterfowl would be derived from present reservoirs and potholes and proposed water developments. BLM has proposed reservoir complexes with a nucleus (a large permanent source of water) and a number of satellite ponds (small permanent or semi-permanent sources of water) in the Prairie Potholes Habitat Management Plan (which should not be confused with the EIS). The satellite ponds are where most of the nesting takes place. When these small ponds dry up, the broods move to the nucleus ponds.

Fencing reservoirs and streambanks is not done only for wildlife. As discussed in the EIS, fencing reservoirs improves water quality for a variety of uses, including the watering of livestock. Streambank fencing is proposed to exclude livestock for a specified time period to allow streambanks to stabilize and allow the establishment or enhancement of riparian vegetation. Grazing in the fenced areas would then be rotated to maintain the vigor of riparian vegetation.

34.

Table 3.14 (page 50) shows the relative amounts of habitat provided by public, private and state lands in the EIS area. Although the analysis and proposals had to deal primarily with public lands, recognition of the entire wildlife picture must be realized to adequately portray the situation of wildlife in the total EIS area. Highly productive private lands provide key seasonal forage and habitat to many game species. Most of the riparian habitat in the area is private land as are many of the key spring and winter areas for big game. Private lands furnish a great deal of the water and water habitat for wildlife, and brushy cover habitat required by many wildlife species.

A large number of private landowners also practice land management that contributes substantially to the support of wildlife, such as leaving brush cover along stream courses and fencelines, and contributing water and feed to wildlife in the form of crops.

Without the continued support of the private landowner, wildlife objectives on public lands in the EIS area would very likely be unmet.

35.

The Chief Joseph Battlefield is managed by the State of Montana. This correction has been made in the final EIS.

36.

Soil loss and water pollution from livestock grazing have been identified on some streams in the EIS area. Actual use and utilization data does not exist for each allotment. The proposed solution to this problem involves three steps: (1) checking the current stocking levels to make any needed adjustments in management or livestock numbers, (2) implementation of AMPs to reduce localized excessive use and (3) development of a monitoring plan which includes the monitoring of livestock use, forage utilization, range and watershed condition, and trend. Please refer to Responses #17 and #22 for more information.

37.

Increases in grazing capacity are based on the long term projections of increased forage resulting from management actions. Immediate increases in grazing capacity are not planned. The desire for greater grazing capacity is based on the projected demand for red meat, wildlife habitat and projections of the greater demand for hunting. Please refer to Response #18 for more details on the proposed vegetation allocations.

38.

According to *Long Term Projections of Demand and Supply for Montana Red Meats and Grains* (Marsh, J., Koo, W. and Cornelius, J. 1979. Montana Agricultural Experiment Station Research Report 148. Bozeman, Montana), the demand for red meat will increase by 14-22% by 2005. The investments proposed are primarily intended to improve ecological range condition and watershed cover. Range condition and forage productivity are directly related. Proposals to improve range condition and watershed cover would result in increased forage for livestock and wildlife.

39.

Your statement is correct. In the Prairie Potholes EIS area half of the forage is allocated for watershed protection, wildlife cover and to meet the physiological needs of plants. All non-forage vegetation is also reserved for watershed protection and wildlife habitat. The proposals in the EIS to increase forage are designed to improve watershed protection and wildlife food and cover. Although additional forage would be made available to livestock, half of the total increase is also allocated for watershed protection and wildlife cover. Proposals to improve the distribution of livestock are designed to reduce impacts from livestock concentrations around facilities. Mechanical treatments to improve range condition and increase forage production would also protect water and soil resources by reducing runoff and erosion. Greater forage also supplies additional food and cover for wildlife species.

40.

Enhanced Livestock Forage (Alternative C) is designed to show the impacts of emphasizing management to maximize production of livestock forage without special considerations for other resources, except where these resources would benefit from increased vegetation production and improved ecological range condition.

41.

Please refer to Response #22.

42.

Yes, palatable plants would increase; the risk of noxious weeds and disease, however, would not increase. Increased production as discussed in Alternatives A, B, C and D refer to the total vegetation found in either the higher levels of ecological range condition or (in the case of crested wheatgrass) in a particular species. As ecological condition improves the percentage of palatable plants will generally increase as will total vegetation production. The most troublesome noxious plant in the Prairie Potholes area is leafy spurge which increases once established even in areas of excellent range condition. Improved management practices would improve the chances for successful chemical control proposed on 2,200 acres of leafy spurge in the EIS area (see page 6). Increasing the production of vegetation by improving ecological range condition improves watershed cover, soil stability and helps to control the amount of noxious weeds in a plant community.

43.

Please refer to Appendix 2.1 (page A-11, "Plowing and Seeding"). With the exception of the use and revitalization of present crested wheatgrass stands in spring pastures to relieve spring grazing of native grasses, the development of monocultures through seeding is not proposed in any area. Please refer to Response #23 for more details in proposed land treatments.

44.

Please refer to Response #24.

45.

According to the best available information wildlife populations are presently increasing. Past range improvements have benefited wildlife as well as livestock. Reservoirs have increased fishing opportunities. The choice is not always between land for livestock and for wildlife and recreation. These uses can and do co-exist in the Prairie Potholes EIS area.

Also, local people see hunting and fishing as the major type of recreational opportunities available. Except for hunting, there does not appear to be the recreational activities or attractions available that draw people into the area.

46.

Please refer to Response #8.

47.

The intermingled land pattern in the EIS area is a major factor in the administration of public lands and resources. The cooperation of other landowners is needed to accomplish BLM management goals. The excellent cooperation of landowners in the past has been a benefit to BLM and is greatly appreciated.

48.

It is not the intent of this EIS to provide the kind of detailed analysis your comments suggest. A general analysis is required because of a lack of a detailed inventory and because the locations of specific projects are presently unknown. As site-specific projects were proposed, procedures in the *Programmatic Memorandum of Agreement* would be followed (Appendix 4.2, page A-183).

We believe that the *Programmatic Memorandum of Agreement* procedures clearly safeguard cultural sites through intensive field inventories on the areas that would be affected by management activities.

49.

The 26% improvement in ecological range condition (page iii) refers to a percentage of total public lands in the EIS area, not just public lands affected by AMP development. The percentage there would be higher, about 34%.

50.

There is a point of misunderstanding involving point number 3 of your letter that we may have communicated during the May 14th meeting. On a given allotment under a rest rotation grazing system, utilization may exceed 50% in a given use season in one or more pastures. This would depend on several factors:

1. The current carrying capacity and the licensed use.
2. The current ecological range condition.
3. How well the rangeland responds to the grazing system.
4. Precipitation during spring and summer seasons.

Typically the current stocking rate (if field checks showed it to be accurate) would be used to start with, being adjusted up or down if necessary after the grazing system has gone through enough cycles to show trend according to the recommendations of Hormay (Hormay 1979, page 20). Also, if problems were detected during the monitoring program requiring changes in the system to meet the objectives applying to a given allotment, they would be corrected by adjustment of the grazing system, supporting facilities, livestock numbers or season-of-use, if necessary. The combination of rest

and deferment would provide wildlife forage benefits primarily for spring feed and additional residual winter forage.

BLM's current policy on AMP flexibility is that no use in excess of a permittee's preference will be allowed without prior approval through a temporary non-renewable grazing license. Many of our current AMPs were set up with the 10-15% flexibility you mention and continue to operate with that flexibility. Our policy is to continue this flexibility on present AMPs unless problems result.

51.

All potential AMP allotments in the western half of the Prairie Potholes EIS area were determined by the Havre Resource Area staff. Of the 30 proposed AMPs (Alternative B) in the Havre Resource Area, 25 are west of Blaine County (Appendix 2.6, page A-128 and the *Map Supplement*, Map 2). Some of these proposed AMPs are quite small (page 7, paragraph 4); on-the-ground inspections might reveal the need to substitute other allotments for AMP development. The forthcoming Resource Management Plan process will consider issues in all resources in each resource area, including wildlife problems and opportunities. In addition field checks of current allotments will be made to verify allocations and determine problems.

52.

Allotments selected for non-AMP status in Alternatives A, C and D are primarily small, scattered tracts with very limited potential for a management plan instituted by BLM. These tracts are suited for cooperative planning involving the rancher, Soil Conservation Service and BLM.

A listing of the potential AMP allotments using the predetermined criteria you describe has been compiled. The complete list is not printed in the EIS: only the 70 allotments which scored highest on this system are listed in Appendix 2.6 (page A-128). The 349 allotments (proposed AMPs in Alternatives A, C and D) which were not selected have been ranked by the same system. As explained on page 7 (paragraph 4), the system used to rate allotments considered acreage, range condition, potential productivity and wildlife habitat values (see Appendix 2-6, A-127).

Alternative B would not preclude BLM from making management changes on those 349 allotments in the future. No doubt AMPs would be implemented on many of these allotments. For the purposes of the EIS, the 7 year implementation period was applied to all alternatives equally though it is anticipated BLM would be in the AMP business for a lot longer than 7 years (see page 7, paragraph 4). Please refer to Response #22 for more details.

All non-AMPs (not proposed for AMPs in any alternative), comprising 121,253 acres, would be inspected to determine if problems exist.

53.

Clubmoss and blue grama, part of the climax vegetation in the EIS area, are found primarily on silty, clayey, sandy and claypan sites on terraces, fans and uplands. Both species increase slowly in density with heavy grazing pressure over a period of years. As stated by Ryerson (Ryerson 1970), there is a definite tendency to find clubmoss on ranges in fair-to-good condition. Once established clubmoss diminishes very slowly even under the best grazing management (Chapter 3, page 43).

Undoubtedly the clubmoss-blue grama association was a factor long before domestic livestock arrived. The density of this association in relation to more desirable species is an indicator of past use and current ecological condition. The clubmoss and blue grama association does not indicate that woody and riparian areas have been severely abused or eliminated. A dense cover of clubmoss and blue grama with limited composition of decreaser species indicates past heavy grazing.

Riparian and woody draw areas might have been severely abused some time in the past. As pointed out on page 43 (paragraph 2), the soils associated with riparian and woody areas respond well to management and are often in higher condition at present than adjoining fans or footslopes. Riparian and woody draws presently provide excellent wildlife habitat.

54.

Riparian and woody areas respond more quickly to grazing management than clubmoss-blue grama range (page 43, paragraphs 2 and 4). See Responses #17 and #22 also.

55.

Please refer to Responses #17, #20 and #22.

56.

High value riparian areas would receive special emphasis in the design of grazing systems. Rest rotation grazing, along with range facilities, would benefit these areas. The response, however, might take longer than areas that are totally rested for 4-10 years. Studies by Lew Meyer in BLM's Dillon Office suggest that the critical time of use in riparian areas is during the "hot period" (mid July-August). Rotation or rest during this period should help improve the woody vegetation.

Monitoring would take place on these allotments and if the desired response were not evident, modifications might be necessary. Please see Responses #17 and #22.

57.

...Your concern that the Prairie Potholes EIS may set the tone for later land use planning is appreciated. To some degree, this may be true as the EIS is an impact analysis process. The results of the analysis might influence future proposals as the impacts for similar actions would still be valid. The RMP process examines the total land use situation involving all resources. During the RMP process, other resource programs (wildlife, watershed, etc.) will be considered in detail. The EIS deals mainly with the allocation of vegetation and monitoring that allocation to ensure that objectives are met. Problems arising during this process not associated with vegetation can be dealt with through resource plans like the Habitat Management Plans or the RMP process.

It should be noted here that the EIS was not written in isolation. Many of the ideas and, to some degree, the tone originated with earlier planning documents, MFPs, AMPs and HMPs. A considerable effort has been made to provide continuity in this EIS between earlier planning and public involvement, and past public and private efforts. To give credit where it's due, present range conditions are not accidental; private and public land managers have been dealing with the problems and opportunities in the EIS area for a long time. The rangeland in the EIS area often responds very slowly to management changes and often an area with a present rating of fair condition started out in poor or very poor condition and has had a lot of work on it already.

Typically overall direction for land use is provided by the Management Framework Plan (MFP). Here guidance or major emphasis is provided for all resource programs—timber, range, recreation, wildlife, watershed, etc. Within these broad program guidelines, activity plans such as the Allotment Management Plans (AMPs) and Habitat Management Plans are developed to solve problems or take advantage of opportunities on-the-ground.

An AMP deals mainly with an individual allotment but also considers any other activity plan within which the allotment may lie.

As the EIS is a court-mandated document, existing planning concerning vegetation allocation was developed as described on page 2. From this the EIS provides guidance in the Preferred Alternative. A Rangeland Program Summary will be written and publicized following the Final EIS, displaying decisions made about guidelines to be used in developing AMPs. The manner in which AMPs would be written and the considerations made for other resource activity plans would continue to involve interdisciplinary review.

58.

One acre was used as an average area figure for analysis purposes. If an AMP were developed, all reservoirs would be evaluated and present seeps fenced according to the size required to control the saline seep. See page 29 (paragraph 5) of the EIS on saline seeps.

59.

It was estimated that the potential 100% increase in deer and antelope populations could result through revision or implementation of 163 AMPs. These AMP allotments have high value riparian zones and the most important big game winter concentrations on public lands in the EIS area. Forbs would be available to big game in the spring without significant competition from livestock in most of the area. This would be because of grazing systems with rest or deferred pastures. The 175,000 acres of mechanical treatments would introduce forbs into the treatment to provide additional spring, summer and fall forage. Water sources, oilers, salting areas, shade sources and mechanical treatments would be placed away from woodland and riparian vegetation, reducing the use of the woody vegetation during the hot summer months. The 388 acres of streamside riparian vegetation and 370 acres of riparian vegetation in seeps would be improved through fencing. Seeps would be planted with woody vegetation where none presently exists if the seep had the potential for supporting that vegetation. All of these actions incorporated into a rest or deferred grazing system with proper utilization and stocking rates would provide the potential for a 100% increase. This estimate is based on professional judgment from the Montana Department of Fish, Wildlife and Parks and BLM biologists using the above criteria.

60.

As discussed on page 49, most important deer habitat is in drainages with woody vegetation many of which contain natural or manmade water sources which concentrate livestock. The EIS emphasizes distributing livestock away from woody areas by placing range facilities and developments on the grassy uplands, thereby reducing the pressure of livestock on woody vegetation during the grazing season. Sagebrush areas used by antelope in winter are not proposed for any reductions; modifications might be made, however, to increase productivity.

All woody vegetation couldn't be protected without complete removal of livestock from public lands. Most woody vegetation, however, would improve in quality through the use of range facilities, mechanical treatments and grazing systems incorporated into AMPs with assistance from wildlife biologists.

61.

Water developments would be planned in conjunction with AMP development. It is not believed that improved livestock distribution in a planned system of grazing management is inconsistent with wildlife habitat management. For example, Mackie (Mackie 1970, pp. 35, 43, 49 and 50) found that deer and elk grazing patterns in relation to water sources in the Missouri Breaks were nearly identical to those of cattle.

Very few natural water sources occur in the EIS area except for the ephemeral potholes and intermittent and perennial streams and rivers. Before reservoirs were built, deer, elk, antelope and thousands of buffalo depended solely on these natural sources for water. In the homestead days livestock in greater numbers than now depended on these same sources. Water developments for the better distribution of grazing animals have been a major factor in the improvement in range condition in the area in the past 40 years.

New water developments would result in greater use of areas only lightly used presently. Most wooded hillside draws are heavily utilized because they contain water or are natural passageways from riparian bottoms to grassy uplands. The lightly used areas are on the grassy uplands, rather than on the wooded hillside draws. When additional water sources were added to a pasture, great effort would be made to place waters away from woody sites in woodless draws or in basins on the grassy uplands. (See Appendix 1.2, page A-6.) Use near water sources would normally exceed use on surrounding range.

Water developments on uplands are generally planned to relieve grazing pressure in riparian areas and provide more uniform distribution of grazing animals in allotments. Under a system of rest and/or deferment with improved distribution of livestock, the benefits gained in riparian areas and other wildlife habitat in an allotment should outweigh local impacts around new water sources. Also, the value of new water sources to waterfowl should not be overlooked when considering this problem.

An AMP is a multiple use plan with objectives for wildlife habitat improvement as well as range condition and watershed improvement. Such a plan often involves trade-offs. One such wildlife trade-off might be a reduction in use in the heavily grazed riparian bottoms for additional use on the lightly grazed uplands. Range facilities on the uplands would be designed to draw livestock from the riparian bottoms, increasing use on the uplands but relieving pressure on the bottoms. The additional water sources, usually with goose nesting islands, would increase waterfowl habitat.

The location of water sources in the areas you describe was of concern more from the standpoint of sharp-tail grouse habitat than of mule deer. Wildlife Objective #7 for Alternatives A and B (page A-6) considers this problem: "Within 1½ miles of a sharp-tailed grouse lek maintain or improve woody vegetation and give careful consideration in location of water improvements."

62.

Please refer to Response #24.

63.

Current BLM policies emphasize the importance of rangeland monitoring. In the past monitoring has often been passed over in favor of other priorities. Since the passage of the Federal Land Policy and Management Act and Public Rangeland Improvement Act, however, BLM has had a mandate to monitor changes in range trends and conditions. A monitoring plan would be a part of each AMP. The level of monitoring would vary, depending on the resource values and conditions in the allotment and funding levels.

For further details on monitoring, refer to Response #25.

64.

Results of the public scoping process and a public attitude survey revealed a very strong feeling that people wanted things left "as they are" as discussed on page 67. Most residents feel: (1) the range is generally in fair to good condition and is improving, (2) good multiple use is currently being practiced, and (3) Federal government involvement poses a threat to the current manner of living and should be minimized. Changes from current practices are neither needed nor wanted, therefore. In addition the BLM assessment of the Prairie Potholes area in general showed that conditions overall are good and that management needs are more along the line of taking care of minor problems, improving range condition based on capabilities of specific soils and range sites, and ensuring a sustained yield of quality vegetation.

65.

The stability you mention is due to the past efforts of both BLM and the local stockmen. Perhaps the EIS didn't say it clearly enough, but the BLM is proud of the cooperative progress that has been made. Management certainly hasn't reached an ultimate stage. With continued cooperation between the BLM and the local stockmen, problems will be solved and the overall upward trend in vegetation condition will continue.

66.

No bias is intended in the EIS for or against any of the multiple resources on public lands. The ratio pointed out was not intended to have any significance other than to display some of the many and varied animals that inhabit or use public lands.

67.

Page 55 (paragraph 5) under "Nongame Animals" states: "prairie dog towns provide habitat for more than 30 animal species." This is not a statement claiming dependence.

Koford (Koford 1958) reported that over 30 animal species are associated with black-tailed prairie dog towns. These species are associated with, *not* dependent upon, prairie dog towns. The black-footed ferret, golden eagle, burrowing owl and mountain plover have a higher incidence on towns than in other areas; however, the golden eagle, burrowing owl and mountain plover occur in the EIS area in places other than on prairie dog towns. In South Dakota black-footed ferrets were also associated with Richardson ground squirrel colonies (Henderson, et al. 1969).

The Montana BLM Prairie Dog Policy as of April 1980 (Appendix 3.12, A-165) will be followed in the management of black-tailed prairie dog towns. The 40 acre maximum size used to assess impacts will be dropped. An environmental assessment will be made of each prairie dog town in the short term and all problem towns will be identified.

Please refer to Response #24 for further details on prairie dogs.

68.

Page 75 discusses the ecological range condition conducive to the establishment of prairie dogs. This condition can be the result of any land use that lowers range condition, especially on the soils mentioned.

Studies conducted on the C.M. Russell National Wildlife Refuge by Craig Knowles showed that 85% of the black-tailed prairie dog towns were a result of a soil disturbing activity (reservoirs, landfill, plowing, road maintenance). When dispersal takes place it is along roads and trails.

Observations in south Phillips County indicate that once established, prairie dogs can maintain or even increase under good range management practices.

69.

It was felt at the time of analysis that the proposed actions would not affect or be affected significantly by insects. It is true that insect population explosions, such as with grasshoppers, can cause serious crop and forage losses. This is one area where data relating to public land management actions is very scarce. Further analysis will be necessary during site-specific projects and AMP environmental evaluations.

70.

It is true that severe winters reduce antelope populations, and many other wildlife species for that matter. Settlement of the area and subsequent changes in the morphology of the landscape from cultural development have particularily affected antelope migrations. The Preferred Alternative would have very little effect on the overall land use pattern other than through grazing management. This would produce more residual forage for winter use. Snow depths in severe winters, however, might make this forage unavailable for use.

71.

It is true that antelope, deer and livestock compete for browse. As the majority of livestock in the EIS area are cattle that primarily graze, not browse, it is believed this conflict is minimal except in fall use pastures. There is substantial use of hay crops by deer in severe winters (page 51, paragraph 4).

If the additional native browse is not covered by snow during severe winters, the proposed rest rotation and deferred grazing systems would provide more residual forage as rest and early use pastures would not have any fall or late summer livestock use.

72.

The sentence should read "characteristic *woody* vegetation." The riparian community is described in detail in Appendix 2.4 (page A-145).

73.

Private lands surrounding isolated tracts of public lands were not inventoried in most cases. Thus, the acreage totals give a false picture of the land status in the non-AMP allotments. Some non-AMP allotments, where the public lands were fenced in with a moderate amount of other lands, were inventoried. A truer picture of the land pattern of these allotments is that public lands constitute less than 10%.

74.

On public lands there are 60 water wells. While there are wells on private land that water public lands, only the water resources on public lands were discussed in the EIS.

75.

The need you mention for substantial cooperative planning is a valid point. While it is very briefly discussed on page 3 (paragraphs 3 and 9), the EIS does not state strongly enough the cooperation that has taken place in the past and the need for further cooperation. Consultation and cooperation with the livestock operators is the key element in development of AMPs.

Intermingled non-public lands were not considered in determining the 70 proposed AMPs (A-127); total acreage of public lands was a major rating factor. As mentioned on page 7 (paragraph 4), further inspection might reveal the need for substitutions of allotments not proposed for AMPs.

76.

Good point. This study was used as an example of the general diet preferences of elk. The conclusions are similar to studies in other locations on the use on grasses, forbs and browse. It was not intended to imply that the species composition of these two areas is identical.

77.

The paragraph you refer to (page 4, paragraphs 2 and 3) does not commit BLM to unnecessary or unattainable levels of monitoring. Rather the kinds of monitoring studies that might be applied on an allotment were noted to help explain monitoring. Please note the words "called for in the AMP," "pertinent to the AMP," "flexible," and "cost effective and tailored to the needs of the AMP." The exact level of monitoring would be a part of the AMP. Monitoring is also discussed in Response #25.

78.

The word "fragile" was used to describe easily damaged soils along stream channels, potholes and on sloping to very steep landscapes in uplands having clay textured soils. These soils have a severe erosion potential; therefore, vegetation cover needs to be maintained or improved to protect the soil resource and water quality.

79.

The Montana BLM Prairie Dog Policy (Appendix 3.2, page A-141) applies to both the Missouri Breaks and Prairie Potholes EIS areas.

80.

See Response #24 for further discussion.

81.

The Missouri River does form a small portion of the southern boundary of the Prairie Potholes EIS area along the 60 miles of river between Fort Benton and Eagle Butte, near the mouth of Eagle Creek.

82.

According to BLM records the map of your allotment is correct. The SCS stocking rate as used in the EIS does not consider the improvements made on your allotment and is, therefore, too low. The same discrepancy exists on many other allotments. It was decided not to adjust AUM figures (the limitations of which are explained on page A-10, paragraphs 13 and 14). An error was made in Appendix 2.3 when the SCS comparison stocking rate was given as the "Recommended Stocking Rate" (page A-15 and A-17 through A-123). This has been corrected to read "SCS Comparison Stocking Rate."

83.

See Appendix 2.1, page A-11 ("Scalping") for Ryerson's recommendations. Chiseling would be done according to these recommendations of Ryerson's: (1) fence treated areas separately, (2) follow the contour for the last chiseling operation and (3) leave trails and roads undisturbed.

We know of the success you have had in improving your range by chiseling and good management. We can't speak for Dr. Ryerson, but his studies have shown scalping to be superior to other methods on suitable sites.

Scalping has some distinct advantages over chiseling in increased production, soil moisture storage, longevity of the treatment and as a means of interseeding the range with desirable species. Chiseling has the advantages of minimally disturbing the soil surface and being able to be done with readily available equipment. Both methods, as well as pitting and contour furrowing, have proven effective in improving clubmoss-blue grama sites.

84.

Please refer to Responses #64 and #65 concerning Mr. Hitch's letter. Your recognition of past cooperation and work by the stockmen, state grazing districts and BLM is appreciated. With continued cooperation BLM and stockmen can build on these past successes.

85.

There are several successful SCS, BLM and rancher cooperative AMPs in effect on allotments with a minority of public lands which would have no management plan without SCS efforts. Of the 728,998 acres proposed for non-AMP status, 607,745 acres in 349 allotments have potential for improved management under a BLM AMP and are proposed AMPs in Alternatives A, C and D. Many of these are well blocked areas of public lands which are now in predominately good condition. Many others, along with the 392 non-AMP allotments in Alternatives A, C and D, are basically scattered tracts which would best be managed under a cooperative conservation plan involving the rancher, SCS and BLM as you suggest. BLM looks forward to continuing cooperative management with the SCS on these lands. Please refer to Response #52 also.

86.

Erosion control measures are standard procedure on BLM projects. On water developments proposed in the EIS, BLM engineers design dams and "pit reservoirs" so that most of the fill material is taken from the pond area to reduce surface disturbances and erosion and to increase storage capacity. See page 73 (paragraph 8) of the EIS.

87.

Adequate assessment of this and many other impacts on non-public lands is difficult due to many variables and lack of information. The analysis was limited to impacts on BLM lands, although we recognize BLM activities affect other lands and vice versa.

Water facilities and other improvement projects on adjoining private and public range are frequently beneficial to livestock and wildlife on both areas. Cooperative planning with all affected landowners is needed to properly locate range improvements to provide the greatest overall benefit.

88.

BLM agrees on the need for cooperation to get things done. Everyone loses when the inability to work together causes nothing to get done on-the-ground. It is true that everything that has been accomplished in administering and improving public range in the EIS area has been done through cooperation. State cooperative grazing districts, which at the time of the passage of the Taylor Grazing Act provided the model for other grazing districts in the west, can be justly proud of their contribution to management of public lands. The role of the grazing districts has been reduced by law with the passage of the Federal Land Policy and Management Act, but the need for local involvement has not changed.

89.

Where state lands are involved, involvement by the Montana Department of State Lands in review and cooperative development of AMPs, including AUM allocations on state lands, is welcome.

90.

Although there would be no additional shoreline cover for nesting waterfowl in pastures being grazed, pastures which are rested and deferred during the nesting period would provide more nesting habitat than presently available. Building 450 new reservoirs and fencing the 7 fisheries reservoirs proposed in the EIS would increase available shoreline and nesting habitat also.

91.

When used as intended the SCS guides are a conservative method for determining stocking rates. The guides are to be used on-the-ground with adjustments for water availability, slope, complexes of range condition and management practices. The way the guides were used in the EIS did not allow for adjustments for on-the-ground differences. As a result some wide variations occurred when the SCS rate was compared to the current stocking rate. It is expected that most of these differences would be much closer together as on-the-ground evaluations are made.

BLM has been working cooperatively with the SCS the past 3 years to improve the data on which the stocking rates are based. We have found, for example, that production figures for some range sites have been based on data collected on soil series which are more productive than series found on public lands. This results in a carrying capacity that is too high for public lands. Adjustments were made to these production figures, in consultation with SCS, for the range site descriptions in Appendix 3.4 (page A-145).

The introduced species you mentioned contribute very little to the total production in the EIS area. Sweetclover and crested wheatgrass are two important species which are not counted in the SCS guides. Since crested wheatgrass seedings vary so widely in carrying capacity (old and new stands, fenced or unfenced), estimates of capacity must be made on a case by case basis. For the purposes of the EIS native range capacities were used for crested wheatgrass stands. These values are generally too low for fenced stands and too high for unfenced stands.

92.

A rating of excellent would not necessitate "severe under-utilization of the forage resource." Excellent range condition means that the range is producing 75-100% of its potential. There are many examples of excellent range condition on the Hi-Line on areas that are grazed. BLM has located studies on several comparison areas in excellent range condition in allotments in Valley County.

Some soils respond readily to grazing management while others respond slowly (see page 43, paragraphs 1-4 and Appendix 2.2, page A-13). It is estimated that 370,300 acres would improve to excellent condition if livestock were excluded (pages 118 and 119). The source of the 17,205 acre figure cannot be found, but it is in error. Significant acreages of excellent range are expected in the "grazing" alternatives that include mechanical treatments of clubmoss-blue grama sites (see pages 89, 95, 104 and 112).

93.

Please refer to Response #34.

94.

Please refer to Response #66.

95.

Increased livestock stress mentioned on page 97 (paragraph 2) as applied to present and proposed AMPs has been corrected to read: "Stress due to moving livestock would increase slightly on the 70 proposed AMPs but would not change significantly on present AMPs."

Nearly all present AMPs require moving livestock from pasture to pasture; any of the grazing systems needing revision are not expected to cause significantly more livestock movement. See Response #31.

Your citing of Gus Hormay's handbook on rest rotation (Hormay 1971, page 22) is correct. It is recognized that excessive moving of livestock reduce gains (see page 78, paragraphs 3 and 4 of the EIS). Careful unhurried handling of the livestock during moves is very important. Pasture systems cannot always be designed to allow for the simple opening of gates, leaving livestock to drift from pasture to pasture. Leaving the gates open and allowing some livestock to remain in the grazed pastures may not be as conducive to improvement, especially in riparian areas, as excluding livestock following the scheduled grazing period. The details of how livestock would move from pasture to pasture would be worked out during AMP development and would be changed only if monitoring showed it to be necessary. A short drift period between pastures is recommended (Appendix 2.1, page A-10 "Grazing Treatments").

96.

Fencing streamside riparian vegetation would admittedly create maintenance problems. The long term benefits, however, would improve water quality for both livestock and wildlife. Stabilization of streambanks would also improve water quality to downstream users and more riparian vegetation would provide additional shade, rubbing areas and forage for livestock at the end of the 4-10 year rest period. Wildlife would benefit by increased cover and forage. Maintenance of these fences would be the responsibility of the BLM. See Response #22 for further discussion.

97.

Present stocking rates are expected to continue based on current information. Detailed checks on stocking rates where problems exist are planned. Any changes, whether for increases or decreases, would be based on studies and monitoring of the allotment for a period of years. The range improvements proposed would be expected to bring about significant increases in forage in the long term, resulting in greater use by livestock and wildlife. For further discussion refer to Response #21.

98.

Please refer to Response #27.

99.

Please refer to Response #28.

100.

To a great degree selection of the Preferred Alternative was due to local comment during the public participation process. Cooperation with the state grazing districts is done to the fullest extent possible within the limits of regulations. These districts are an integral part of the grazing program on public lands in Montana.

101.

Section 102 (parts 7 and 8) of the Federal Land Policy and Management Act of 1976 directs that public land management be on a multiple use and sustained yield basis. Part 8 provides that food and habitat be reserved for fish, wildlife and domestic animals.

The Prairie Potholes EIS deals with the allocation of vegetation to all uses or demands. As wildlife is one of the two major consumptive uses of vegetation, it must be considered in sufficient detail to adequately assess the effects of the vegetation allocation process. Wildlife is also one of many resources that make up the full multiple use spectrum. The habitat provided by vegetation to wildlife and the cover provided wildlife and watershed are important in the allocation of vegetation, whether for consumptive or non-consumptive use.

There is no intention of favoring one resource over another in vegetation allocation or management in the EIS. There must be trade-offs, however, when resolving conflicting demands which is not saying that wildlife and livestock are in total conflict. Both have vegetation requirements and there are some areas where conflicts exist on limited vegetation resources and both resources would, of necessity, receive less than optimum shares.

It should be noted that growth in wildlife populations are predicted along with increased livestock production. As such it is felt that both are benefiting proportionally to demand.

102.

Please refer to Response #34.

103.

Please refer to Response #31.

104.

Please refer to Responses #22 and #96.

105.

Please refer to Responses #31 and #95.

106.

Please refer to Responses #17, #20, #22 and #56.

107.

The "management plan" or EIS is an environmental assessment document that recommends a preferred action. In this case Alternative B is the proposed management plan, with the exception of the recommendation of the 40-acre limit on prairie dog towns. It could not be categorically stated as such until all comments were in and answered to make sure that the Preferred

Alternative did not need to be modified. However, the EIS is not a decision document. Decisions will be made and published in the Rangeland Program Summary following publication of the final EIS.

108.

BLM authorizes livestock use to grazing associations in the same manner as with a corporation.

Grazing associations are not State of Montana entities, but they are authorized to operate as an association under Montana law. Grazing associations are now operated under Chapter 2 of Title 35, Montana Codes Annotated (nonprofit membership type corporation).

A grazing association is a member-owned, member-operated and member-managed nonprofit association of family farms and ranches. Associations are organized to acquire and develop grazing land to provide seasonal grazing for the livestock of members.

Grazing associations are established through the Farmers Home Administration under legislation enacted in 1962. The FmHA is authorized to make loans to these grazing associations.

The Montana State Cooperative Grazing Districts were authorized by Montana law (Grass Conservation Act) in 1939. This law was enacted in response to the Federal Taylor Grazing Act and allows landowners to incorporate and form state grazing districts to improve livestock forage conditions. The districts are administered by the Montana Department of Natural Resources and Conservation. BLM and the districts administer the range on a cooperative basis where public lands are included in a grazing district.

109.

Please refer to Responses #34, #47 and #87.

110.

See the "References Addendum" Section.

111.

Please refer to Responses #17 and #22.

112.

Please refer to Responses #22 and #96.

113.

Please refer to Response #28.

114.

Rest rotation (and deferred rotation) grazing systems are excellent management tools. There are many successful rest rotation and deferred rotation systems in operation on the Hi-Line. The interest and cooperation of the livestock operators has made these systems work. It is apparent, however, that grazing systems alone do not significantly improve clubmoss-blue grama areas. Mechanical treatments are recommended on those soils to improve ecological range condition based on the response to treatments demonstrated at the Montana State Agricultural Experiment Station at Havre and on several ranches in the EIS area.

115.

The term "Non-Consumptive Use" is used in the EIS to point out that vegetation remaining ungrazed or unconsumed also has a use—i.e. meeting the physiological needs of plants for continued growth and vigor and for providing soil cover and soil holding properties. It could also be called "Resource Maintenance Vegetation."

116.

Please refer to second paragraph of Response #31.

117.

Some conflicts do exist, but it was not intended to depict livestock and wildlife as antagonistic uses. Analysis of the various alternatives demonstrates that good range management is compatible with wildlife needs. For example even in Alternative C (Enhanced Livestock Forage), wildlife populations would increase from the benefits of increased forage and rest and deferred grazing treatments page 105 (paragraphs 5 and 6).

Wildlife habitat objectives are very similar to range management and watershed objectives, but differences would often arise when projects were applied on-the-ground (e.g. seasons-of-use and the location of facilities). To apply multiple use management is a challenge; it is true that management plans are only as perfect as the public and private land managers who develop and apply them. See also Response #31.

The most dramatic example of benefits to both livestock and wildlife from past improvements is the development of 2,300 livestock water sources. Not only did these structures provide water for livestock but they provided nesting, brood rearing and staging areas for waterfowl. Canada goose production was very limited in the EIS area until these reservoirs were constructed. Production grew further when goose nesting islands were added to the reservoirs.

118.

BLM's Visual Resource Management System is primarily designed to protect the visual quality of a particular type of landscape from radical change. There is no attempt to define or evaluate beauty in the system but rather to develop categories of landscape types and set limits to preserve its scenic character.

Most of the Prairie Potholes EIS area is classified as having average scenic quality. As such it is primarily flat to rolling terrain dotted with minor developments such as farm and ranch operations, reservoirs, roads, fences,

etc. The addition of similar types of developments that would not change the general character of the land would be well within the visual guidelines for this type of landscape.

119.

There is a demand for antelope hunting in the EIS area as all available permits are normally taken. The Montana Department of Fish, Wildlife and Parks conducts summer and winter counts of antelope. What cannot be predicted is how many additional antelope migrate here from Canada during severe winters that occur on an average of once every decade.

120.

The best data available was used in analyzing the various alternatives. Inventories were based on accepted methods. In addition all of the mechanical treatments recommended have been proven in the EIS area. Analysis of wildlife impacts were largely based on studies done in the EIS area.

The inventory before the EIS indicated that the 1960's range surveys are generally acceptable (see page 5, paragraph 6, and pages 44-46). BLM has adopted the SCS range site and condition method for determining ecological range condition. This method has been available since the early 1950's and is widely used in Montana by the Soil Conservation Service, Bureau of Indian Affairs and the Department of State Lands. See Response #21 also.

The EIS proposes general direction for the administration of a range management program. Within these guidelines AMPs would be tailored to specific allotment conditions. It is agreed that BLM operations would greatly affect the results of the plan.

121.

Refer to Response #27 concerning the costs of the alternative.

122.

Please refer to Responses #28 and #90.

123.

Please refer to Response #24.

124.

The list is of plant species encountered on our SVIM transects. Very few samples were taken on pond sites. Your contribution towards improving the plant list is appreciated.

125.

Please see Responses #34 and #87.

126.

Please refer to Response #107.

127.

Management of mineral resources is part of multiple use of public lands. The EIS team concluded, however, that livestock grazing would not affect minerals management. Minerals and mineral resource development is included under the general heading of "Geology." The EIS states on page 71 (paragraph 1) that geology will not be analyzed.

128.

Please refer to Responses #17 and #22.

129.

The Prairie Potholes EIS area is very important for waterfowl production. The 2,300 reservoirs BLM built for livestock watering also contribute to waterfowl production. Of the existing reservoirs, approximately 15% contain goose nesting islands. BLM has also begun implementing the Prairie Potholes Habitat Management Plan, spending approximately $600,000 on additional permanent water sources and goose nesting islands. Additional benefits around the natural potholes and reservoirs would be realized as grazing systems are implemented in the EIS area as discussed on page 80 (paragraphs 4-6). Also see Response #28.

130.

Please refer to Response #24.

131.

The term "riparian" as used in the Prairie Potholes EIS pertains only to wetland/streamside vegetation and in no way connotes the appropriation or use of water. Stream segments fenced would include water gaps or other devices to allow livestock access to water. If other water were available to livestock within a reasonable distance, however, livestock could be excluded entirely from the fenced riparian section. Fencing riparian vegetation zones along streams on public lands does not infringe on private water rights. Senate Bill 76 does not grant water rights on public lands to private users. Refer to Response #22 for more detailed discussion.

132.

Please refer to Responses #21 and #97.

133.

Please refer to page 1 (paragraph 3) of the EIS.

134.

Added funds in fiscal years 1980-81 to institute range improvements on public lands in 11 western states proposed in 41 EISs totaled $9.5 million, affecting about 50 million acres of land. BLM has implemented range improvements recommended in AMPs in Montana from the completion of the Missouri Breaks and Mountain Foothills EISs. In the Missouri Breaks area

range improvement funds spent on actual projects for AMPs have totaled $691,000 thus far. To implement the whole program, it will cost $3.6 million. In the Mountain Foothills area $166,000 is planned to be spent on actual project work during fiscal year 1981. For the total range improvement program in this area, $1.5 million dollars will be spent.

135.

Minimal fencing would be planned to permit implementation of grazing systems. The estimates of fences needed in the EIS area was based on a worst-case situation; the actual miles needed might be considerably less.

136.

Please refer to Response #34.

137.

Public hearings were held according to the letter printed on the inside front cover of the EIS, dated March 23, 1981. Refer to the comment section of this document for the results of those hearings.

138.

Please refer to Responses #21, #57 and #65.

139.

It is recognized that there are differences in the habitat of various wildlife species throughout the EIS area. The wildlife discussion was necessarily general because of this problem. Differences in wildlife needs would be handled during the implementation of specific AMPs with help from wildlife biologists.

140.

Please refer to Responses #21 and #57.

141.

Clubmoss, blue grama and cactus increase under heavy grazing over a period of years. These plants are natural parts of the plant community found in limited amounts in the best of conditions on certain soils. See Response #53 for clarification.

142.

All improvement practices proposed in the EIS are for public lands only. Please refer to Responses #17 and #22 for more details.

143.

Improvements have been noted in resource conditions. It is stated on page 44 (paragraph 5) that range in the Prairie Potholes EIS area is generally in a static or upward trend. Responses #28, #61, #65, #70 and #117 discuss the observations you have made.

144.

The intent is to develop the planned AMPs with full involvement and cooperation from the range user. The livestock operator's knowledge of livestock movements is one area in which such involvement is critical to properly locate management fences. Workable plans can't be developed without involvement of the range user. See Response #135.

145.

It is true that smaller pastures would not necessarily improve breeding success, depending on the situation in a given allotment or ranch. If breeding success is a problem, smaller pastures should help. As you say, the manager is the key factor and a difficult factor to adequately consider in an analysis of this scope. The word "would" used on page 78 (paragraph 5) has been changed to "could."

146.

Please refer to Responses #17, #22 and #101.

147.

The recommendation to make no changes in seasons-of-use was based on the succcess of the 93 current AMPs, most of which involve spring use rotated from pasture to pasture. Periodic deferment of spring use is proposed on all allotments which have 50% or more fair and poor range condition. Spring forage is a key factor to wildlife. Under a four pasture system 75% of the range is ungrazed during that critical time. The ungulate population increases projected are partially based on a predicted response to the availability of more spring forage. See page 79 (paragraphs 2-4).

148.

Please refer to Response #23.

149.

Please refer to Responses #17, #22 and #101.

150.

Many wildlife populations are below their biological potential. Growth is predicted in deer and antelope populations because of the improvement of habitat from proposals in the Preferred Alternative. These animals are also controlled by landowner tolerance, predation, harvest and severe winter weather. See Responses #17 and #22 for discussion of riparian conditions and proposed management.

151.

Refer to Response #24.

152.

The rationale for reducing prairie dog populations is to maintain or improve ecological range condition and protect watershed. The rationale for this objective (item #6 "Wildlife" for Alternatives A and B, Appendix 1.2) and all other objectives are on file at the Lewistown District Office.

Studies conducted by BLM in south Phillips County do not agree with the preliminary indications of the South Dakota report which you referred to. The clipping studies which have completed in the Missouri Breaks EIS do not show increases in forage production on prairie dog towns. The results are as follows:

	Lbs. Vegetation/Acre	
	Phillips Soil	Elloam Soil
In Prairie Dog Towns	233	186
Adjacent to Towns	592	528
Comparison Area	820	516

153.

Please refer to paragraph 4 of Response #24.

154.

Please refer to Responses #24 and #68.

155.

The "other resource objectives" referred to are those displayed in the "Resource Objective Matrix," Appendix 1.2 (pages A-2 through A-8). These apply in Alternatives A and B under the column "Enhanced Combined Vegetation Uses" and "Continuation of Present Management" Alternatives.

156.

Please refer to Responses #18, #22, #51, #52 and #85.

157.

Please refer to Responses #17 and #22.

158.

Strutting grounds are being protected at this time without fences. Grazing usually is just beginning during the peak of grouse mating activity. Distribution of livestock may be a problem in some areas but not nearly the problem that would be created by placing wing fences near strutting grounds. These fences would concentrate livestock, usually in the prime nesting cover, reducing the amount of this habitat. The only time a strutting or dancing ground is in danger is if it is destroyed during mechanical treatment. All of these areas would be cleared by wildlife biologists before treatments are done (see Appendix 2.1, page A-11, paragraph 8).

159.

BLM is not a research agency but does depend on research from universities and other agencies to guide land management. The soil surveys and range condition inventory that serve as the inventory data base for this EIS were done by professionals in BLM and SCS. Follow-up on this data base with monitoring and evaluation systems to measure changes in range trend, range condition and watershed conditions and wildlife habitat would be done.

160.

The Preferred Alternative would result in more forage for antelope. See Responses #3, #5 and #27. When antelope migrate from Canada they use the same areas as resident antelope which are depicted on Map 4 (*Map Supplement*). It is impossible to predict how many antelope will migrate when severe winters occur (about once every 10 years). Thus it is impossible to estimate the forage uses by these animals. When winter conditions are such that migrations take place, snow cover would reduce the availability of any reserve forage. These migrations usually cause damage to what native forage is available and to haystacks on private land. BLM cannot reserve forage for a phenomenon which may only take place every 10 years. In 1978 resident antelope migrated further south while the Canadian antelope moved into the present winter areas.

161.

The alternative you propose is essentially Alternative A. Please refer to Responses #22 and #85 for further discussion. As stated in Response #22, Alternative B does not preclude future management changes on the 349 allotments.

162.

Thank you for the additional information on antelope wintering areas. It will be placed on habitat maps in each resource area and consulted during AMP development.

163.

Total printing cost for the draft EIS was $26,059.00. The only additional cost incurred in printing the appendices under separate cover was $1,200.00 for cover stock, printing and binding. A savings was realized by eliminating the need for hand collation of the maps by including them in a separate map volume.

164.

BLM would solicit comment from the BIA on any AMPs that affect Indian lands.

165.

The allotment boundary for allotment 6399 was erroneously extended into Township 30 North, Range 5 East.

166.

BLM is responsible for management of public lands including wildlife habitat (Public Law 94-579, Federal Land Management and Policy Act of 1976; see Section 103, Part C).

167.

Studies of current AMPs in the EIS area have shown that range improvement practices are needed to improve condition on clubmoss-blue grama sites. Water development is needed on many allotments to improve livestock distribution.

168.

You are correct.

169.

Absolute accuracy cannot be attained in any system of range inventory. The monitoring practices we have followed and intend to follow in the future are sound. See also Response #25.

170.

This information is being obtained on current AMPs on an annual basis. Actual use information is turned in by the operator. Counts are conducted on a case by case basis on allotments where there is reason to believe actual livestock use is inconsistent with authorized livestock use. See Response #25 for details of future action.

171.

BLM is responsible for administering livestock grazing within the capacity of the range to support grazing animals. Monitoring is needed to ensure that use stays within the current carrying capacity limits. Proper use stocking levels alone would not result in proper use grazing on all plants or areas. This fact is recognized on page 76 (paragraph 2).

172.

The SVIM inventory was extensive but did not involve the site-specific detail needed to propose chemical sagebrush control, water spreaders or prescribed burning. Sagebrush control was considered on dense sagebrush stands (over 30% canopy). Density data was not available but will be when the transect data is processed. Careful site evaluation and consideration of other alternatives would be needed before construction of a water spreader. All estimates of proposed range improvements are general, not site-specific. See also Response #23.

173.

The "implied validity" you refer to assumes full availability of all SVIM data. As stated on page 2 (paragraphs 5 and 6) delays in processing resulted in the unavailability of SVIM transect data. Soil survey and range condition mapping acreages by allotment were available, however. The estimates of range condition may be modified in some cases when the transect data is fully processed.

174.

No such map is available. When AMPs are developed revised site-specific evaluations would be made. All land treatments would follow the *Memorandum of Understanding* and supplements between BLM and the Montana Department of Fish, Wildlife and Parks (page A-11 and Appendix 4.22 in the "Revised Pages").

175.

Leafy spurge will increase even under the best management. This can be seen on many ungrazed roadsides where leafy spurge has invaded. Rest rotation grazing would greatly contribute to the success of a chemical control program.

It has been found on the Phillips-Elloam soil complex in south Phillips County that once prairie dogs establish, they will increase under any type of grazing system. The only way to effectively control the spread of prairie dogs is through an eradication and control program. For further discussion see Response #24.

176.

Mechanical treatments were considered because the need for treatments has been demonstrated on the 93 present AMPs in operation from 5-15 years. The soils on which treatments are recommended have shown a very slow response to rest rotation; some clubmoss-blue grama sites have been rested for 60 years with no increase in production at the Northern Montana State Agricultural Experiment Station (Ryerson and Houlton, 1980, Northern Montana State Agricultural Experiment Station, Personal Communication). Recommendations for treatments are based on soil capabilities (see page 26, Appendix 3.2 and Response #23).

177.

As stated on page 120 (paragraph 4) prairie dog towns are on soils which will not respond fast enough to grazing systems to provide a vegetative barrier that would inhibit the further spread of these animals. See also Response #24.

178.

Please see Response #166.

179.

On October 30, 1979 a meeting was held in Glasgow between the Montana Department of Fish, Wildlife and Parks and BLM personnel. At this meeting, the present populations of deer and antelope in each hunting unit along the Hi-Line were discussed. MDFW&P personnel supplied estimated population data for each hunting unit after this meeting. BLM supplied all available field

data but estimates were mainly made from MDFW&P data. After this data was supplied the BLM biologists on the Hi-Line extrapolated it to public lands by allotment, e.g.:

> Hunting Unit 611—4 deer per square mile.
>
> Allotment #610—has 1,280 acres of public lands or 8 deer.

At a later meeting between BLM and MDFW&P held at Lewistown on or about August 25, 1980, the projected increases were discussed. (See Appendix 4.5 which follows this response, page A-190 in the draft EIS.) The assumptions which BLM worked under in this EIS were explained and the projections agreed to by both agencies. No changes were made during two preliminary reviews by MDFW&P field personnel, which included a review of the preliminary draft of the EIS. The basis for the population projections is explained in Response #59.

The predicted wildlife population responses would not directly result from BLM actions; rather (in the opinion of those involved in the meeting) these actions would improve habitat to provide for such increases in population.

The basis for projecting duck and goose production is as follows:

1. There are 2,298 reservoirs and approximately 3,470 natural potholes on public lands in the EIS area (from project files and photo interpretation).

2. The average size of reservoirs and potholes is 3 and 5 acres, respectively (from project files and photo interpretation).

3. An assumption was made that 40% of the reservoirs have adequate residual cover for successful nesting due to grazing systems (rest rotation mostly).

4. The remaining 60% do not have adequate residual cover for successful nesting from grazing systems.

5. The reservoirs which provide adequate nesting cover would produce 9 ducks/surface acre (Gjersing 1971).

6. The reservoirs which do not provide adequate nesting cover would produce 1 duck/surface acre (Gjersing 1971).

7. Assume that only 50% of the natural potholes have sufficient water to produce waterfowl; assumptions 3-6 also apply to the potholes.

8. Approximately 15% of the reservoirs have man-made islands (estimated from BLM operations staff).

9. McCarthy (McCarthy 1973) reported that 70% of the islands contain a pair of breeding geese.

10. Each breeding pair produces 4 goslings per brood. Preliminary studies by Gjersing of MDFW&P and Hoff of BLM in the Havre Resource Area indicate that 1.6 goslings are produced per square mile in areas which do not contain goose nesting islands.

180.

Please refer to Responses #59 and #179.

181.

Please refer to Response #152. The EIS is not a decision document. The Montana Department of Fish, Wildlife and Parks will be consulted on actions concerning wildlife on individual AMPs according to the *Memorandum of Understanding* (see Appendix 4.22 in the "Revised Pages") between our agencies.

182.

See Response #59 for the rationale for predicting a 100% increase in big game populations. Professional judgment indicates that there is a potential for this increase due to the implementation of AMPs. Based on these potential increases in big game populations, earnings and employment from increased recreation expenditures would change by the amount specified. (See Appendix 3.14 for the methodology used to translate increases in numbers of animals into increases in sales, earnings and employment.)

183.

Please refer to Response #179.

184.

Prairie dogs and noxious weeds (leafy spurge) are now present in the EIS area. Prairie dogs would expand as explained on page 120 (paragraph 4). Once leafy spurge establishes range condition does not deter its spread.

185.

The "low significance" can be seen when range improvement in the No Grazing Alternative is compared to improvement in Alternatives A, B, C or D.

186.

On page 119 of the EIS (paragraph 9), Trueblood is quoted about a change he noted in dominant vegetation in the Missouri River Breaks with no grazing.

The expansion is from findings of Howard Tietjan (Howard Tietjan, 1980, U.S. Fish and Wildlife Service, Personal Communication) who worked on the Buffalo Gap National Grasslands in South Dakota. Most prairie dog towns in the EIS area are on silty and claypan soils which would not respond well to rest (page 120, paragraph 4). Also, Knowles' study was on friable clay soils which respond quickly to rest.

187.

The acres of habitat would not change significantly but the quality would decrease.

APPENDIX 4.5

IN REPLY REFER TO
1792
ES File

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
District Office
Drawer 1160
Lewistown, Montana 59457

AUG 25 1980

Memorandum

To: The File

From: John J. Grensten, Wildlife Management Biologist

Subject: Projected Wildlife Populations For The Six Alternatives of The Prairie Pothole EIS

Dick Trueblood and Bob Watts of the Montana Dept. of Fish, Wildlife and Parks, and Larry Eichhorn, John Fahlgren and John Grensten met in the Lewistown District Office to discuss the subject information.

After a discussion of each alternative within the EIS a projected population was determined as follows:

Alternative 1 "Freezing Range Program"
- Short-term - existing population
- Long-term - maintain existing population

Alternative 2 "No Grazing"
- Short-term - 3 times the existing population (i.e. 3 deer/sec to 9 deer/sec)
- Long-term - maintain 3 times the existing population not considering the influence of severe winters.

Alternative 3 "Enhanced Wildlife - Watershed"
- Short-term - existing population
- Long-term - 3 times the existing population

Alternative 4 "Enhanced Livestock"
- Short-term - existing population
- Long-term - 1.5 times the existing population

Alternative 5 " Enhanced Combined"
- Short-term - existing population
- Long-term - 2 times the existing population

Alternative 6 " Present Management"
- Short-term - existing population
- Long-term - 2 times the existing population on the 94 existing and 70 proposed AMPs

We made these projections on assumptions which will be included in the assumption section of the EIS.

John J. Grensten

188.

Possibly sites might be exposed and lost due to erosion. It is, however, impossible to analyze this with any degree of accuracy.

189.

The intent here was to say that riparian zones are unsuited to continous grazing; rest and deferment systems are needed in these critical areas.

190.

There is no reference to clubmoss in Hormay's handbook (Hormay 1970) on rest rotation. Based on studies of current AMPs rest rotation is a suitable grazing system on clubmoss sites if the objective is maintenance. If significant improvement is desired, it appears mechanical treatments are needed on these sites. See Responses #23, #167 and #176.

191.

This has been changed to read: "become dominated by clubmoss, blue grama and cactus under heavy grazing over a period of years."

Mechanical treatments on these specific soil subgroups would bring dramatic improvement in 2-4 years; rest rotation would slowly improve these sites but it would take more than 15 years to improve range condition significantly with a grazing system alone. Rest rotation and deferred rotation are recommended to maintain and improve the condition and productivity of treated areas. See Responses #23 and #53.

192.

Actual use information is provided annually by the livestock operators of AMP allotments from actual counts and records of periods of use.

193.

Tables 3.9, 3.10, 3.11 and 3.12 (pages 45 and 46) show the grazing systems in operation on current AMPs. Over 80% of public lands' AMP acreage (454,827 acres) is under a rest rotation grazing system.

194.

Many researchers have determined that wildlife species use the riparian and woodland habitats. Jack Ward Thomas, a noted researcher, has done most of his work in Oregon and Washington. The reference "Thomas et al., 1976" has been changed to "Thomas et al., 1979." See the "References Addendum."

195.

Please refer to Responses #17 and #22.

196.

Dusek (Dusek 1971) who studied mule deer in the EIS area (page 51, Table 3.15) found that browse is important throughout the year. Other vegetation is used in varying amounts during the year. Forbs were the most important diet component in the summer according to Dusek's study.

197.

A correction has been made to clarify your point that increases in hunter and fisherman days shown in *Design for Tomorrow, 1977-1990* are the "objectives" rather than "projections" of the Montana Department of Fish, Wildlife and Parks.

198.

You are correct; this correction has been made.

199.

You are correct; the reference to Willard and Herman has been deleted.

200.

Hormay (Hormay 1970) pointed out that grazing at any time can be harmful to woody species. Winter grazing is the most favorable for increasing desirable grasses, improving infiltration, allowing for better vigor of grass species and increasing litter and reducing cactus according to Willard and Herman (Willard and Herman 1977).

201.

You are correct. This now reads: "Hormay (Hormay 1970) stated 'The range manager must prepare the formula to fit his specific range'."

202.

We agree. See page 77 (paragraph 6).

203.

Wildlife would not benefit directly from chemical control of noxious weeds. Weed control in combination with proper grazing management, however, would provide for the improvement of ecological range condition. It would also prevent possible severe competition between livestock and wildlife if the forage base was depleted by noxious weeds with a subsequent decline in range condition and productivity.

204.

Please refer to Response #23.

205.

This information was considered in analysis of livestock response to deferment of spring use in Alternative D. See page 112 (paragraph 4).

206.

Hormay discussed such a system but did not recommend it over other formulas. Rather he stated: "The range manager must prepare the formula to fit his specific range." There are a few AMPs in operation in the EIS area which employ two years rest, a very

effective system. This grazing formula has been recommended by BLM biologists to benefit waterfowl based on the findings of Gjersing and Mundinger.

207.

The statement about severe winter weather and harvest quotas influencing the population was suggested by MDFW&P field personnel. A harvest quota is placed on a particular herd unit to keep the animals in balance with the habitat. Severe winter weather after the hunting season could limit the big game population and cause it to fluctuate.

208.

Please refer to Responses #17 and #22.

209.

It is recognized that sharp-tail habitat is not improved by even distribution of livestock (page 79, paragraph 12). Beneficial impacts to sharp-tails are projected on these three factors:

1. Sharp-tail habitat would be protected by careful consideration of placement of water developments in sharp-tail habitat areas (Wildlife Objective #7, page A-6).

2. Mechanical treatments with interseeded alfalfa would greatly increase cover and desirable forbs. Studies by Ryerson (Ryerson et al. 1970) and field observations by John Grensten in 1973 found that sage grouse, sharp-tails, waterfowl and many nongame animals nested and inhabited mechanical treatments in the EIS area.

3. Management would be for an upward trend. Nielson (Nielson 1978) noted that rest rotation did not benefit sharp-tails due to a static trend.

210.

Yes, remembering that the clubmoss-blue grama types support only sparce communities of woody vegetation. Vigorous winterfat and nuttal saltbush as well as increased fringed sagewort have been observed on treated areas in the EIS area.

211.

Please refer to Response #209.

212.

Please refer to Response #209. Also, a correction is made so that both references read .5 miles.

213.

Gjersing (Gjersing 1971, page 36) mentioned that residual cover is available in pastures which contain crested wheatgrass if the pasture is grazed after July 20. It is assumed that the residual cover is mostly available from dried crested wheatgrass plants. It has been our experience that very little utilization occurs on these plants during the summer months. Gjersing also stated: "Breeding pairs increase in years following this treatment in every instance but one (Pasture 5 from 1969-70)." It is interpreted that some of the breeding pairs nest in this residual crested wheatgrass cover.

214.

The reference is that rest provides residual vegetation. Gjersing (Gjersing 1971) referred to the residual vegetation being available to waterfowl. This vegetation would also be available for nongame species.

215.

This statement was made from field observations associated with evaluations of mechanical treatments by BLM personnel.

216.

Please refer to Responses #59 and #179.

217.

These treatments would not be in sagebrush communities but on blue grama-clubmoss sites. Please refer to Response #209.

218.

Please refer to Response #212.

219.

Grazing treatments in the AMPs would provide adequate residual cover for the present populations of nongame. There is always going to be a limiting factor in wildlife management. The residual cover should allow larger populations but might still be the limiting factor after larger population levels were reached.

220.

These projections are for deer and antelope. Please refer to Responses #27, #59 and #179.

221.

Increases in deer and antelope populations have been noted since 1979. The projections which were made in the various alternatives were a result of better quality habitat (one of several factors influencing populations) as discussed in Responses #59 and #179. The base populations from which projections were made were from the period before the recent increases.

222.

Please refer to Responses #59, #179 and #221.

223.

No projections were made on upland game bird numbers.

224.

It is very difficult to estimate the number of individuals in a wildlife population. The origin of these estimates

is discussed in Responses #59 and #179. Discussions were held with MDFW&P field personnel about the full potential of the area. It was determined that the existing habitat could handle a threefold increase (as was the case in the late 50's and early 60's) if the habitat were properly managed.

The Prairie Potholes EIS is designed to allocate forage to the consumptive and non-consumptive users. Wildlife is both a consumptive (food) and non-consumptive user (cover) of vegetation. Without an estimate of wildlife numbers no forage could be allotted to consumptive or wildlife habitat needs.

225.

There was no effort to use wildlife to justify or support rangeland management actions. Rather impacts to wildlife were determined from an honest analysis of the various alternatives using the best available data. Alternatives were developed purely on the basis of resource objectives developed by specialists in range, wildlife, watershed and recreation management. Please refer to Responses #19 and #20 for further discussion of the alternatives and to Responses #59, #61, #179 and #209 for discussion of wildlife impacts.

226.

Fencing riparian areas, saline seeps and 7 fishing reservoirs would be considered for reasons other than simply reducing sediment yields: namely, wildlife habitat and water quality. Sediment yield reductions would be a benefit of fencing areas to improve habitat. When viewed in the total context of why fencing is proposed for these areas (see "General Impacts" Chapter 4) one can see that fencing would result in significant improvements in wildlife habitat and fisheries. Fencing for reduced sediment yield alone would not be cost effective. Refer to Responses #22 and #96 for a discussion of riparian fencing costs.

227.

The list of fisheries reservoirs includes all which are stocked by the MDFW&P; some are quite marginal and are stocked only periodically.

228.

Fisheries reservoirs have resulted from construction of exceptional stockwater or watershed protection reservoirs. See also Response #28.

229.

The projected number of fisheries reservoirs is based on the percentage of fisheries that presently exist of the total number of reservoirs; it is assumed that the same percentage would be true of new reservoir construction. Future funding is open to some speculation but the analysis assumes sufficient funds. Funds have been available for construction of wildlife reservoirs but such work has been halted due to water rights questions.

CORRECTIONS & REVISIONS

The changes below resulted from comments of the public, review of the EIS by BLM and changes in BLM policy or guidance from new regulations and laws. Underlined words or phrases are additions to the original text. Revised pages with the changes underlined or in bold print can be found following this list.

Page	Column	Paragraph	Sentences	Should Read
ii	1st	10	1st	This alternative includes revision while continuing operation of the present 93 allotment management plans....
	2nd	2nd	1st	The vegetation allocations to both livestock and wildlife would increase by 25 percent by the year 2003.
iii	1st	1st	2nd	Compared to Alternative A, this alternative is a lower level management program developed from public comment and cost-benefit analysis.
iv	2nd	3rd	3rd	Reservoir fisheries would increase by 17.
vi	2nd	1st	5th	Maintenance of current range improvements would be allowed in the Bittercreek Wilderness Study Area.
1	2nd	1st	3rd	(See the revised page following this errata section.)
12	2nd	6th	1st	Erosion would decrease in the long term....
15	1st	8th	1st	Red meat production would decrease by 22,334,550 pounds.
	2nd	5th	2nd	These increases would be insignificant.
25	1st	1st	3rd	The surface air temperatures in the eastern part of the area average 70° F and 9° F in July and January, respectively.
26	1st	1st	5th	Because of the topography, slope and erosion potential (due either to flood waters or texture of soils), mechanical treatments are not recommended.
30	1st	5th	1st	At present there are 60 wells on public lands in the EIS area....
	2nd	2nd	2nd	On public lands there are 14 miles (or 1.5 percent)....
36	2nd	1st	1st	Vegetation cover data for the four categories was used....
	2nd	1st	2nd	Figure 3.4 illustrates the range in vegetation cover for each of the four soil categories....
		Figure 3.4		Ac-ft/sq.mi./year (top figure)
39	1st	1st	3rd	Characteristic woody vegetation includes....
42	1st	Table 3.8		Source: BLM Phenology Studies.
43	2nd	1st	1st	Most soils....become dominated by clubmoss, blue grama and cactus under heavy grazing pressure over a period of years.
44	1st	5th	4th	(See Appendix for the condition of allotments by AMP status....)
* 49				(References are listed in the revised "Reference" Section.)
	1st	7th	1st	The diversity of habitat in the Prairie Potholes EIS area supports 145 resident and 269 migratory wildlife species, consisting of 37 mammals, 266 birds, 13 reptiles, 7 amphibians and 51 fish....
55	2nd	3rd	1st	(See revised page following.)
58	1st	2nd	5th	Since the river forms part of the southern boundary of the Prairie Potholes EIS area (along the 60 miles mentioned above), only impacts to the river and land corridor north of the river will be considered in the EIS. (See Map 5.)
	2nd	2nd	1st	In Design for Tomorrow 1977-1990, the Montana Department of Fish and Game stated their objectives for a two-fold increase in hunter days....
60	1st	4th	1st	Because of the size of the Prairie Potholes EIS area (1,749,238 acres)....
62		Table 3.25		1. Urban classification includes all places of 2,500 or more population. 2. Rural non-farm includes all places up to 2,500 persons and all other rural residents not classified as farm residents. 3. Rural farm classification includes all rural residents living on farms.
71	2nd	1st	1st	Irretrievable and irreversible commitments of human resources, materials, fossil fuels and money would be made in all alternatives except Alternative F.

72	1st	1st	1st	(Hormay, 1970).
	2nd	4th	3rd	Prediction of the effects of exclosure fencing in the long term was made by multiplying the acreages of the exclosures by the mean of the lowest sediment and water yield rates (figure 3.4).
73	1st	2nd	1st	(Ryerson and Houlton, 1980).
	2nd	2nd	1st	Sediment yield to reservoirs results in part from the erosion of dams and shorelines.
	2nd	2nd	3rd	A study of reservoirs in the EIS area (BLM, 1980) indicates that reservoirs trap between 84-100 percent of all sediment (Table 4.1).
75	1st	2nd	3rd	When the range is in poor or fair ecological range condition, prairie dog towns develop and spread (Craig Knowles, 1980, Montana Department of Fish, Wildlife and Parks, Personal Communication).
76	1st	5th	2nd	Hormay (1970) stated: "The range manager must prepare the formula to fit his specific range."
77	1st	3rd	1st	As a result of increases in desirable plants, range condition would improve to high-good or excellent in 5-10 years after mechanical treatments.
78	1st	1st	2nd	This response could be expected on soil subgroups 3, 4 and 10 (predominately friable clay soils).
	2nd	1st	1st	Grazing systems which require the fencing of large allotments into pastures could improve calf crops....
79	1st	1st	2nd	Since specific wildlife objectives govern the proposals of an alternative, it is important to know if important wildlife habitat exists in an allotment.
80	1st	5th	1st	Mechanical treatments within 0.5 miles of potholes....
84	2nd	4th	3rd	This change would be realized as cash only if the ranch or portion of the ranch....
86	2nd	1st	3rd	This change in sediment and water yields would have no significant impact on water quality.
87		Table 4.3		"Range Facilities" under "Water Quality" - 0 + Increase Water Quality 0 No Change in Water Quality - Decrease Water Quality
94		Table 4.4		"Range Facilities" under "Water Quality" "-" + Increase Water Quality 0 No Change in Water Quality - Decrease Water Quality
	2nd	1st	2nd	Water quality would decrease slightly due to erosion resulting from the development of facilities.
96	2nd	5th	1st	While range condition improvements would be highly significant on affected allotments, the overall improvement would be of moderate significance, as is shown on the table on page 95.
97	1st	2nd	1st	Stress due to moving livestock would slightly increase on the 70 proposed AMPs but would not change significantly on present AMPs.
	1st	3rd	3rd	Leafy spurge and prairie dogs would be controlled....
99	2nd	1st	1st	Long term big game hunting opportunities would increase on affected allotments.
100	1st	1st	1st	Short term impacts on overall ranch income in this alternative would be minimal.
101	1st	8th	1st	There would be 419 AMPs (covering 1,062,754 acres) developed....
	2nd	5th	2nd	Water yield would decrease from 77,881 acre-feet/year initially to 62,479 acre-feet/year in the long term.
102	1st	1st	All	Range facilities would decrease sediment and water yields slightly, sediment yield decreasing from 0.4 acre-feet/year in the beginning to 0.34 acre-feet/year in the long term. Water yield would decrease from 14.3 acre-feet/year initially to 14.28 acre-feet/year in the long term. Water quality would be lessened slightly by these increases.
	2nd	1st	3rd	Water yield would decrease from 204,344 acre-feet/year initially to 77,329 acre-feet/year in the long term, a highly significant decrease also.

102		Table 4.5		"Grazing Treatments" under "Water Yield" should be 77,881 under Initial and 62,479.1 under Long Term. "Totals for Existing, Proposed AMPs" should be 204,344 under Initial and 77,329 under Long Term. + Increase Water Quality 0 No Change in Water Quality - Decrease Water Quality
104	2nd	1st	1st	The long term forage allocation to livestock would increase from the present 319,065 to 618,215 AUMs.
	2nd	1st	4th	The forage allocation to non-consumptive uses would increase from the present 339,603 to 648,006 AUMs....
109	2nd	1st	1st	This alternative would include 225,000 acres of mechanical treatments.
110		Table 4.6		"Range Facilities" under "Water Quality" "-" + Increase Water Quality 0 No Change in Water Quality - Decrease Water Quality
116	1st	2nd	3rd	Allocations of more forage to wildlife and watershed would be viewed as a threat to the community's sense of security.
	1st	3rd	1st	This alternative proposes a large number of AMPs ... developed to benefit wildife and watershed....
117	2nd	1st	4th	Overall, sediment yield would decrease slightly from 5,351 acre-feet/year initially to 4,009 in the long term. Water yield would decrease from 210,874 acre-feet/year in the long term. While there would be a general decrease in sediment and water yields in the long term, the spread of noxious weeds and prairie dogs would cause dramatic increases in these yields if not controlled. Sediment yield from the spread of noxious weeds on soil subgroups 5, 6, 7, 9, 18, 20 and 27 would grow from 9.4 acre-feet/year initially to 16 acre-feet/year in the long term. Water yield would also increase from 82.5 acre-feet/year initially to 193 in the long term. Water quality would degrade as sediment and water yields increased. Without being controlled, prairie dogs would cause an increase in sediment yield on soil subgroups 1, 2, 9, 10, 11 and 12 from 6.7 acre-feet/year initially to 733 acre-feet/year in the long term. Water yield would grow from 41.3 acre-feet/year initially to 8,963 in the long term. These increases also show the stagnation of vegetation. Water quality would lessen considerably.
118		Table 4.7		"Noxious Weeds" under "Water Quality" - + Increase Water Quality 0 No Change in Water Quality - Decrease Water Quality
120	1st	4th	3rd	Prairie dog towns are located on soils which would not respond quickly to rest (soil subgroups 1, 2, 9, 11 and 12).
123-124	2nd	6th	5th	(See revised paragraph in the section following.)
A		13th	1st	The National Park Service administers no land in the Prairie Potholes EIS area.
A-2		2nd Heading		Enhanced Combined Vegetation Users and Continuation of Present Management Alternatives.
A-15		8th	1st	SCS Comparison Stocking Rate (AUMs).
A-17 (all odd pages thereafter through A-123)	3rd column heading			SCS COMPARISON STOCKING RATE/AUMs
A-127				Following this grouping of priorities, an additional rating was placed on each allotment from the Resource Objectives Matrix (Appendix 1.2).
A-180				Appendix 2.5 shows the changes in final demand relating to range development construction and maintenance expenditures.
A-189				Calculations are as follows: AUMs divided by .75 = yearling AUMs X 52.5 (monthly gain 30 X 1.75) = pounds of livestock production.
A-198	4th heading			Average Decrease in BLM AUMs Per Ranch
	5th heading			Average Percent Decrease in BLM AUMs Per Ranch
	6th heading			Average Percent Decrease in Total AUMs Per Ranch
	10th heading			Decreased Annual Income

A-200	4th heading	Average Decrease in BLM AUMs Per Ranch
	5th heading	Average Percent Decrease in BLM AUMs Per Ranch
	6th heading	Average Percent Decrease in Total AUMs Per Ranch
	10th heading	Decreased Annual Income
A-202	4th heading	Average Decrease in BLM AUMs Per Ranch
	5th heading	Average Percent Decrease in BLM AUMs Per Ranch
	6th heading	Average Percent Decrease in Total AUMs Per Ranch
	10th heading	Decreased Annual Income
A-203	4th heading	Average Decrease in BLM AUMs Per Ranch
	5th heading	Average Percent Decrease in BLM AUMs Per Ranch
	6th heading	Average Percent Decrease in Total AUMs Per Ranch
	10th heading	Decreased Annual Income
	Total (at bottom)	318
A-206	4th heading	Average Decrease in BLM AUMs Per Ranch
	5th heading	Average Percent Decrease in BLM AUMs Per Ranch
	6th heading	Average Percent Decrease in Total AUMs Per Ranch
	10th heading	Decreased Annual Income
List of Preparers		(See addendum following).
References		(See addendum following).

CHAPTER 1

PURPOSE and NEED

PURPOSE and NEED

The Prairie Potholes Environmental Impact Statement (EIS) analyzes the resource, social and economic impacts of instituting a rangeland management program in the northern portion of the Lewistown District of the Bureau of Land Management (BLM) in Montana.

The BLM is responsible for the management of livestock grazing on public lands in a manner that maintains or improves the public land resources including soil, water, vegetation and wildlife habitat. The Bureau's principal authority to manage public lands is found in the Taylor Grazing Act of 1934, Federal Land Policy and Management Act of 1976 and Public Rangelands Improvement Act of 1978.

This EIS is written in compliance with the National Environmental Policy Act of 1969, Council on Environmental Quality regulations and in specific response to litigation in the Natural Resources Defense Council et al. versus Rogers C. B. Morton et al. 1973 (U.S. District Court for the District of Columbia, ref. Case No. 1983-73).

The purpose of the EIS is to develop a livestock grazing program consisting of vegetation allocation necessary to equitably allocate the vegetation among competing consumptive uses and implementation of grazing treatments and range improvement projects to maintain or improve vegetation yields and watershed conditions. The result of the EIS will be used to implement decisions needed for management, protection and enhancement of the rangeland resources. The proposal would cover a 22 year period from the time actions are initiated.

SETTING

The Prairie Potholes EIS area of northern Montana (Map 1-1) is characterized by rolling prairies broken by glacial potholes and drainages which sometimes are sharply incised to include river breaks landforms. The Sweet Grass Hills and Bears Paw Mountains are landmarks in the region. Population in the area is mainly concentrated in the Milk River Valley. Many of the ranch operations are very remote from the river valley towns.

Total acreage in the eleven county EIS area is approximately 15.5 million acres, including 1.75 million acres of public lands under BLM management (see Map 1, Map Supplement). Most of the public lands are concentrated in Blaine, Phillips and Valley Counties and include substantial amounts of Land Utilization (LU) lands reacquired by the government under the Bankhead-Jones Act of 1937.

The EIS area includes a total of 904 allotments involving 637 ranch operations. Most of these include some grain farming in combination with livestock production. There are also 9 grazing associations in the EIS area. There are 6,245 acres of public lands that are unallotted to livestock grazing. These lands are administered through the Havre (Havre), Phillips (Malta), and Valley (Glasgow) BLM Resource Area Offices of the Lewistown District.

While there are large continguous tracts of public lands, the primary land ownership pattern is of scattered tracts of public lands intermingled with private and state lands. These land patterns strongly affect grazing management options. Private lands are usually located along drainage bottoms and on the more productive uplands. In addition to livestock grazing, these tracts provide wildlife habitat, recreation and activities compatible with multiple resource management.

MANAGEMENT GUIDANCE and RESOURCE COORDINATION

The administration of public lands involves the complex interdependence among lands of different ownership, uses, and capabilities. The EIS area contains private lands as well as lands managed by the National Park Service, Bureau of Indian Affairs, Water and Power Resources Administration, Corps of Engineers, the Montana Department of State Lands and the Montana Department of Fish, Wildlife, and Parks. Agency responsibilities are described in Appendix 1.1

Development of the proposed grazing management program is guided by mandates to manage the public lands for multiple use and sustained yield under the Federal Land Policy Management Act (FLPMA) of 1976 (90 Stat. 2743). The system begins with land use planning. This involves multidisciplinary resource inventories contained in the Unit Resource Analysis (URA) and social and economic data analyzed in the Planning Area Analysis (PAA). Management decisions are then developed in the Management Framework Plan (MFP).

RING-NECKED PHEASANTS

Public lands in the EIS area provide about 15,000 acres of ring-necked pheasant habitat (Table 3.14). Pheasants prefer areas where there are grain crops and weeds for food, and brush and trees (woodland and riparian) for cover (Janson, et al., 1971). Cattail and bulrush in wetlands also provide additional escape and winter cover for pheasants.

In the spring and summer green grasses and forbs provide food for the adult birds. Chicks eat insects during their first 4-6 weeks and then switch to vegetation. Small grains and weed seeds are used during the fall and winter.

Waterfowl

The Canada goose and 22 species of ducks are found in the EIS area (Appendix 3.10). In addition to the Canada goose, common nesting species are the mallard, pintail, blue-winged teal, green-winged teal, American wigeon, northern shovelers, lesser scaup and gadwalls.

The Prairie Potholes EIS area is part of the larger continental potholes region (300,000 square miles), the most important waterfowl producing area in North America (Smith, et al., 1964). In wet years this total area has the potential of producing over half of the annual duck population in North America while containing only 10 percent of the duck breeding area. Water is the limiting factor in duck production.

In the EIS area natural potholes, streams and the Milk and Marias Rivers provide nesting habitat for ducks and Canada geese. BLM has made a significant contribution to waterfowl production in the area by developing about 2,300 reservoirs which also provide nesting habitat for waterfowl. Manmade islands, especially important for Canada geese, have been built in about 15 percent of these reservoirs.

There are approximately 3,500 potholes and 186 miles of high value streams on public lands in the EIS area which supply nesting habitat. The average pothole and reservoir provide 5.2 and 3.0 acres of habitat, respectively. These bodies of water have the potential of producing approximately 34,800 ducks and 5,500 Canada geese on public lands in the EIS area annually. Waterfowl depend on cover in the upland area and on islands for nesting in the spring (Berg, 1956). Broods use emergent aquatic and shoreline vegetation for cover and food during the summer. Nesting and brood cover in the area are generally in very poor condition in the vicinity of all water where there is heavy use by livestock.

In Minnesota and eastern North and South Dakota, drainage of the potholes for agriculture has limited duck production. Conflicting legislation in these states has hampered the U. S. Fish and Wildlife's attempts to preserve natural wetlands. This is the reason public lands in northern Montana remain as a very important duck producing area in the United States,although the 1.75 million acres in the EIS area make up less than 1 percent of the potholes region of North America.

Canada Goose

Nongame Animals

Mink, beaver and muskrat are the principal fur bearers harvested in the area. All three are associated with water habitat. Predators that might be observed on public lands are the coyote, fox, weasel, badger, skunk, bobcat and raccoon. Other less common predators that may be present are the lynx, wolf and black-footed ferret. The latter two are on the endangered species list and are further discussed under that category in this section. See Appendix 3.10 for a species list of nongame animals in the EIS area.

Numerous nongame birds occupy various habitats on public lands. Some are specific to a particular habitat type with the highest densities occurring in riparian ecosystems (BLM, Nongame Studies, 1980). Almost all are seasonal and leave the area during winter. Species of special interest to the Montana Department of Fish, Wildlife and Parks (1979) are presented in Appendix 3.10.

Invertebrates, (especially insects) are represented in the EIS area in large variety and abundance in the summer months but are generally fewer in the winter. Mollusks, snails, worms and aquatic insects are important in the food chain and are a major food source of fish, birds, small mammals, reptiles and amphibians.

There are presently 18 black-tailed prairie dog towns covering approximately 1,715 acres in the EIS area. Prairie dog towns provide habitat for more than 30 animal species. The burrowing owl and mountain plover, species of special concern of the Montana Department of Fish, Wildlife and Parks, (1979) are found in these towns. Potential habitat for the endangered black-footed ferret also exists in these towns.

Prairie dogs compete with livestock for forage. In the past prairie dog towns covered thousands of acres in the EIS area and were reduced or eliminated by local ranchers through control programs. Prairie dog expansion on public lands may seriously reduce the forage

vegetation (Hormay, 1975). This includes proper livestock distribution, seasons of use and stocking rates to reduce the effects of livestock concentrations on floodplains, footslopes, fans and around reservoirs (Hormay, 1975; Ryerson and Houlton, 1980; Holechek, 1980 and Smeins, 1975). Concentrations of livestock lead to the overuse of vegetation and soil compaction in the areas mentioned above (Rauzi and Hanson, 1966; Gifford, 1975; Holechek, 1980 and Smeins, 1975). According to BLM soil inventories (1980), the potential for soil compaction on floodplains, footslopes and fans (soil subgroups 6, 10, 11, 12, 13 and 17) is high. Removal of vegetation and soil compaction by livestock decreases water infiltration and increases both sediment and water yields (Rauzi and Hanson, 1966 and Holechek, 1980). Sediment yield is highest on soil subgroups 3, 4, 10, 11, 13 and 16; water yield is highest on soil subgroups 2, 3, 4, 10, 11, 12, 13 and 16 (BLM, 1980). Water quality is reduced by increased sediment and water yields because concentrations of suspended sediment, nutrients and fecal bacteria in surface waters are increased (EPA, 1979; Holechek, 1980; Smeins, 1975 and Johnson, Gary and Ponce, 1978).

Proper distribution of livestock would improve ecological range condition by maintaining vegetation cover and soil stability and productivity (Dyksterhius, 1951 and Lodge and Campbell, 1965). Since this is rarely achieved over an entire allotment, livestock concentrations occur. Adequately designed grazing treatments can reduce problems caused by livestock concentrations.

Maintaining or improving watershed resources can be accomplished almost entirely by the timely resting of the range (Hormay, 1970). Grazing systems that provide periodic rest or deferment for the phenological development of plants maintain adequate vegetation cover and plant productivity (Cook, 1966; Hormay, 1970 and Table 3.8) while resulting in improved water quality, less soil compaction and streambank sloughing (Holechek, 1980). According to BLM soil inventories (1979), rest and deferment treatments would result in the greatest vegetation response on clayey and overflow range sites (soil subgroups 3, 4, 6, 10, 16 and 17). The least response would occur on claypan and dense clay range sites dominated by clubmoss and blue grama (soil subgroups 2, 11 and 13). Floodplain and riparian zones (soil subgroups 6 and 17) would benefit from the deferment of livestock use during wet soil conditions in the spring (Holechek, 1980).

Initial sediment and water yields were calculated by averaging the mean value of each soil subgroup aggregation (Figure 3.4), multiplied by the total acreage in AMP and proposed AMP status (Table 2.1) for each alternative. Predicted yields for the long term were computed by using areally averaged sediment and water yields multiplied by acres affected in each alternative.

Exclusion of livestock from selected riparian zones for 4-10 years followed by rotational grazing treatments of rest and deferment would increase the vigor of all riparian vegetation. Increased riparian vegetation cover would help stabilize stream banks and channels, resisting erosion and slowing water velocity, improving water quality by reducing suspended sediment and fecal bacteria and lowering water temperatures by providing shade (Holechek, 1980). Excluding livestock from fisheries reservoirs by fencing would improve water quality (Holechek, 1980) and increased vegetation cover would lessen sediment loading and prolong the useful life of these reservoirs. Fencing would also prevent erosion of shorelines and dams caused by livestock trampling and trailing.

Saline seeps below reservoir dams occur in any of the soil subgroups that were developed on glacial till or derived from marine sediment rich in salt content (Brown and Ferguson, 1976 and Bahls and Miller, 1976).

Excluding livestock from saline seeps for 4-10 years followed by rotational grazing treatments of rest and deferment would allow the establishment or improvement of wetland type vegetation such as willows, cottonwood and creeping foxtail (Batz, 1976, Stroh et al., 1978 and Krall, 1976). Use of seep water by plants would reduce salt accretion from the evaporation of water that is somewhat saline in many cases (Ferguson, 1976 and Bahls and Miller, 1976). Salt accumulation reduces water quality and decreases soil productivity (Bahls and Miller, 1976 and Krall, 1976).

For calculating the effects of exclosures, the assumption was made that sediment and water yields would be low to medium for soil subgroups 6 and 17. Initial yield rates were obtained by multiplying the median sediment and water yields by the proposed acreage of the exclosure.

Range vegetation production can be increased by mechanical treatments of native or introduced plant species (EPA, 1979 and Branson, et al., 1962). Mechanical treatments would disturb anywhere from 40-100 percent of the soil surface, causing a temporary lowering of vegetation production. Production rapidly increases the first year after treatment (Ryerson and Houlton, 1980), however. Mechanical treatments (with 1½ to 2 years rest following treatment) would improve plant vigor and production, increase infiltration and lower sediment and water yields (Ryerson, and Houlton, 1980).

Mechanical treatments expose large areas of bare soil to erosion initially but greater vegetation cover after the first year lowers runoff and erosion. Pits and furrows also collect rainfall, helping prevent erosion (Wight and Siddoway, 1972). Almost all precipitation falling on

zero since the effectiveness of mechanical treatments vary with soil conditions and the length of the time since the treatment.

Range facilities would decrease sediment and water yields slightly. Sediment yield would decrease from 0.4 acre-feet/year initially to 0.36 acre-feet/year in the long term. Water yield would decrease from 14.3 acre-feet/year initially to 14.28 acre-feet/year in the long term. Water quality would lessen slightly due to these increases.

Water development would have the same effects as described in Alternative A.

Consumptive water use by livestock would increase from 4,130 acre-feet/year initially to 6,827 acre-feet/year in the long term based on vegetation allocations to livestock of 374,064 AUMs and a long term allocation of 618,215 AUMs.

Chemical treatment of noxious weeds would reduce livestock grazing pressure on non-infested range. Sediment yield would decrease from 6.8 acre-feet/year initially to 1.5 acre-feet/year in the long term with reduced grazing intensity. Water yield would likewise decrease from 266.2 acre-feet/year initially to 93 acre-feet/year in the long term. Chemical control of prairie dogs on 1,715 acres and revegetation of former prairie dog town sites would also reduce sediment yield.

CONCLUSIONS

This alternative would result in a 68 percent decrease in sediment yield from 4,676 acre-feet/year initially to 1,502 acre-feet/year in the long term (Table 4.5). This would be a highly significant decrease. Water yield would decrease from **204,344 acre-feet/year initially to 77,329 acre-feet/year in the long term, a highly significant decrease, also.**

Water quality would improve significantly with reduced runoff from mechanically treated sites, areas where range condition is improved by grazing treatments and from chemical treatments of noxious weeds and prairie dogs.

An increase in consumptive use of water by livestock from 4,130 acre-feet/year to 6,827 acre-feet/year in the long term would not be significant compared to the water presently held in stockwater reservoirs.

The 920,000 acres of mechanical treatments proposed in this alternative would reduce sediment and water yields significantly in the long term. In addition the allocation of an equivalent of 648,006 AUMs of vegetation would provide additional residual watershed cover and litter that protect the soil surface from erosion and promote vegetation production. Increased vegetation production on upland areas, new water sources and other range developments would relieve grazing pressure on floodplains and riparian zones, resulting in increased stream channel stability.

There would be no irretrievable or irreversible loss to soil and water resources in this alternative.

TABLE 4.5: SUMMARY OF WATERSHED IMPACTS BY TREATMENTS AND FACILITIES

ALTERNATIVE C

Element	Sediment Yield (ac-ft/yr)		Water Yield (ac-ft/yr)		Water Quality	Consumptive Water Use by Livestock (ac-ft/yr)	
	Initial	Long Term	Initial	Long Term		Initial	Long Term
Grazing Treatments	1,468.1	1,128.00	**77,881**	**62,479.1**	+		
Exclosures	·	·	·		0		
Mechanical Land Treatments on 920,000 acres	2,823.3	0	111,305.6	0	+		
Range Facilities	0.4	.36	14.3	14.28	+		
Water Developments	I	I	I	I	0		
Chemical Treatments							
—Noxious Weeds	6.8	1.5	266.2	93.0	+		
—Prairie Dogs	5.3	1.2	207.5	72.5	+		
Non-Treatment	372.1	371.0	14,669.7	14,670	0		
Totals for Existing and Proposed AMPs	4,676.0	1,502	**204,344**	**77,329**	+	4,130	6,827

I - Insignificant
· - Not applicable in this Alternative

+ - Increase Water Quality
0 - No change in Water Quality
— - Decrease Water Quality

Source: BLM, 1980

The overall impact on the attitudes of ranching oriented residents would be very negative because this alternative would decrease forage allocated for livestock and increase government presence and control. The impact on the attitudes of recreation/environmental oriented residents would be positive because substantial amounts of vegetation would be allocated for wildlife and watershed.

The short and long term direct and indirect decreases of 0.5 percent or less in intensive study area earnings and employment would be insignificant overall but any decrease in employment in an area which had high unemployment in the past might be viewed with alarm. The long term decrease in property tax would be an insignificant loss given the total property tax base.

There would be significant irretrievable losses of ranch income in this alternative. Some ranches might be unable to remain in business in their present form. There would also be irretrievable losses to the intensive study area earnings. There would be no irreversible losses.

ALTERNATIVE E

No domestic livestock would be permitted to graze on public lands in this alternative. The analysis of this alternative provides a basis of comparison for the environmental, social and economic consequences of the other alternatives.

Current grazing privileges would be revoked, including the present 93 AMPs. All agreements with cooperative grazing districts would be affected as well. No range improvements would be built or maintained unless the improvements were considered necessary for resource programs such as watershed or wildlife. Salvage rights would be granted or cash reimbursement made to ranchers who had contributed to range improvement facilities.

This program would eliminate the current permitted livestock use of 319,065 AUMs. In the "worst-case" situation, BLM would fence public lands to prevent livestock trespass. Five thousand miles of fences would be necessary for this undertaking, costing $15,126,500 according to 1980 cost estimates.

Watershed

Elimination of livestock grazing on public lands would bring about an immediate increase in vegetation production, providing more cover and litter to the soil surface. Vegetation cover and litter would increase the most on soil subgroups 3, 4, 6, 7, 10, 16 and 19 (see "Vegetation," Chapters 3 and 4). Water and sediment yields would decrease slowly in the long term in soil subgroups 1, 2, 5, 9, 11 and 18 dominated by clubmoss-blue grama vegetation that respond slowly to management. Overall, sediment yield would decrease slightly from 5,351 acre-feet/year initially to 4,009 acre-feet/year in the long term. Water yield would decrease from 210,874 acre-feet/year in the long term.

While there would be a general decrease in sediment and water yields in the long term, the spread of noxious weeds and prairie dogs would cause dramatic increases in these yields if not controlled. Sediment yield from the spread of noxious weeds on soil subgroups 5, 6, 7, 9, 18, 20 and 27 would grow from 9.4 acre-feet/year initially to 16 acre-feet/year in the long term. Water yield would also increase from 82.5 acre-feet/year initially to 193 acre-feet/year in the long term. Water quality would degrade as sediment and water yields increased.

Without control, prairie dogs would cause an increase in sediment yield on soil subgroups 1, 2, 9, 10, 11 and 12 from 6.7 acre-feet/year initially to 733 acre-feet/year in the long term. Water yield would increase from 41.3 acre-feet/year initially to 8,963 acre-feet/year in the long term. These increases also reflect the stagnation of vegetation. Water quality would lessen considerably.

CONCLUSIONS

The net effect of the elimination of livestock grazing on public lands would be a decrease in sediment yield from 5,351 acre-feet/year to 4,009 acre-feet/year in the long term (Table 4.7). Water yield would decrease from 210,874 acre-feet/year initially to 191,237 acre-feet/year (9 percent) in the long term, a significant decrease. Water quality would improve significantly with reduced levels of fecal bacteria, suspended sediment and nutrients contained in runoff water. The 3,523 acre-feet/year of water that would normally be consumed by livestock would be available to other users, including wildlife, recreation and downstream users.

There would be no irretrievable or irreversible loss to soil and water resources in this alternative.

and long terms. Using representative ranch categories, all livestock operations would now be operating at a loss. Forty-six of these operations fall into the small livestock/small cash crop category where the potential for being affected is the greatest.

REGIONAL ECONOMIC IMPACTS

Appendix 4.21 shows the impact on the intensive study area output, earnings and employment of changes in livestock sales, range development, construction, recreationist expenditures and government employment. In the short and long term the greatest impact would be from decreases generated by a loss in livestock sales. These changes would result in a loss of $7,274,000 annually in earnings and 710 in employment in the intensive study area.

Total employment in the intensive study area would decrease by 570 people in the short term and 669 people in the long term. Total earnings would decrease by $5,516,000 annually in the short term and $6,543,000 annually (over 3 percent of the current intensive study area total) in the long term.

For both the short and long terms, assessed valuation for livestock would be decreased by an estimated $14,948,000 and property taxes by $239,000 in the intensive study area. This is a 43 percent decrease from the tax currently paid for livestock by these operators.

CONCLUSIONS

In the short and long term income would decrease on all 558 operations in this alternative. The decrease in net ranch income would be–144 percent of the current total. Permit values would decrease by 100 percent and ranch employment by 67 percent. The social well-being of 744 families would be reduced because of the changes in income and permit value. Forty-six of these are small livestock/small cash crop operations and 195 others would lose more than 140-180 percent of their current income. These impacts are considered to be highly significant.

Long term changes in recreation/wildlife related earnings (+ $73,000) and employment (+ 7 positions) due to increased expenditures for recreation would be insignificant to the total economy of the intensive study area.

The overall impact on the attitudes of ranching oriented residents would be extremely negative. Recreationists and environmentalists would be expected to hold more moderate views.

The short and long term direct and indirect decreases of 2.8 to 3.4 percent in intensive study area earnings and employment would be considered moderately significant. The decreases in employment would be very severe locally. The decrease in property taxes (43 percent) would also be moderately significant.

There would be very significant irretrievable losses of ranch income in this alternative. A significant number of ranches might be unable to remain in business in their present form. There would also be significant irretrievable losses to intensive study area earnings. There would be no irreversible losses.

ALTERNATIVE F

The current range program would be "frozen" under this alternative. The 93 established AMPs would continue on 558,986 acres but no new AMPs would be implemented on the remaining 1,184,008 acres (904 allotments). No new range developments (reservoirs, fences, pipelines, etc.) would be constructed even in support of present AMPs. No changes in current levels of permitted livestock use would be allowed.

Initial and long term vegetation allocations would be the same for the long term as the initial allocations: 319,065 AUMs for livestock, 20,538 AUMs for wildlife and 339,603 to non-consumptive use. No additional costs above present maintenance expenditures would be incurred because no new improvements would be constructed.

All future options in range management would be forgone under this alternative. There would be no opportunity to correct erosion problems, increase or decrease livestock numbers, change kinds of livestock, adjust seasons-of-use, or improve range management. Little improvement would be expected on the 20 AMP allotments (156,195 acres) which are currently in less than 50 percent good condition.

The analysis shows future conditions in the area likely to occur as a result of continuing the present rangeland trends.

Watershed

Maintaining the current 93 AMPs without the option to make changes or adjustments in grazing treatments, stocking rates and seasons of use would result in a deterioration of watershed condition and water quality in the long term ("Vegetation", Chapters 3 and 4). Without the chance to change stocking rates, abuse or overgrazing of vegetation would decrease vegetation cover and cause accelerated erosion. Continuation of early seasons use without periodic rest or deferment would reduce vegetation cover through compaction of soils in the long term and increase runoff and erosion, particularily on soil subgroups 2, 5, 6, 9, 10, 12 and 18. The loss of the ability to make management changes in livestock grazing on the 93 current AMPs would result in substantial increases in sediment and water yields. Downstream users would benefit from water yield increases but increases in sediment and water yield

would decrease water quality from increased amounts of suspended sediment, nutrients and fecal bacteria in surface waters and increasing sediment loading of reservoirs and stream channels. Part of the increase in sediment and water yields would come from increases in the spread of noxious weeds and prairie dogs. Grazing pressure would intensify on non-infested areas. In the long term noxious weeds and prairie dogs would spread to cover a total of 244,280 acres, providing little, if any, desirable watershed cover.

Lack of new water sources would result in continued concentration and heavy use of vegetation by livestock near reservoirs and other water sources. Areas more distant from water (greater than 1½ miles) would receive light use. Consumptive water use by livestock would remain at the current level of 3,523 acre-feet/year.

CONCLUSIONS

Without the ability to make modifications to grazing treatments on the current 93 AUMs, there would be moderately significant increases in sediment and water yields (Table 4.8). Sediment and water yields would increase with the spread of noxious weeds and prairie dogs to 244,280 acres with decreases in the quantity and quality of watershed cover. Sediment yield would increase from 4,679 acre-feet/year to 5,432 acre-feet/year in the long term. Water yield would increase by 29,080 acre-feet/year to 218,008 acre-feet/year in the long term. Water quality would be reduced significantly in the long term due to increased sediment and water yields.

Consumptive use of water by livestock would remain at the current quantity of 3,523 acre-feet/year in the long term.

The loss of soil in this alternative due to erosion would be irretrievable but not irreversible. There would be no irretrievable or irreversible loss of water resources.

TABLE 4.8 : SUMMARY OF WATERSHED IMPACTS BY TREATMENTS AND FACILITIES

ALTERNATIVE F

Element	Sediment Yield (ac-ft/yr)		Water Yield (ac-ft/yr)		Water Quality	Consumptive Water Use by Livestock (ac-ft/yr)	
	Initial	Long Term	Initial	Long Term		Initial	Long Term
Grazing Treatments	1,030	1,030	45,208	45,208	0		
Exclosures							
Mechanical Land Treatments							
Range Facilities							
Water Developments							
Chemical Treatments							
—Noxious Weeds	9.4	16	266	639	–		
—Prairie Dogs	6.7	733	208	28,915	–		
Non-Treatment	3,633.4	3,653	143,246	143,246	–		
Totals for Existing and Proposed AMPs	4,679	5,432	188,928	218,008		3,523	3,523

I - Insignificant
- - Not Applicable in this Alternative

+ - Increase Water Quality
0 - No Change in Water Quality
– - Decrease Water Quality

Source: BLM, 1980

—Noxious Weeds
—Prairie Dogs

APPENDIX 3.9: MODIFICATIONS TO TECHNICAL NOTE 283 FOR THE PRAIRIE POTHOLES EIS AREA

Technical Note 283 (Duff, D. A. and Cooper, J. L. 1976 Technical Note 283: U.S.D.I., BLM) was used to conduct stream habitat surveys in the Prairie Potholes EIS area. TN-283 was modified for these surveys by changing the vegetation classes for streambank cover as defined on page 17 of that document.

The four vegetation classes and the specific criteria used for ocular evaluation in the EIS area are:

Class 1 (4 points) Rather than "Forested"

a. if the streambank is medium to densely covered (more than 30 percent canopy cover) with trees and an understory of shrubs, forbs and grasses.

b. or is a medium to densely covered streambank (more than 50 percent cover) with riparian vegetation and the remainder of the vegetation is composed of other woody types or trees.

c. or is a densely covered streambank (more than 80 percent cover) with a mixture of shrubs, forbs and grasses (Chapter 3, "Riparian Vegetation") and the remainder of vegetation is riparian vegetation or trees.

d. or is a very densely covered streambank (more than 90 percent cover) with tall grasses (e.g. prairie cordgrass) or mid grasses (e.g. green needlegrass) as dominant vegetation.

e. with less than 10 percent of bank barren of vegetative cover. (Includes bare soil, rocks, etc.)

Class 2 (3 points) Rather than "Brush"

a. if the streambank is lightly covered (10 to 30 percent canopy cover) with trees and an understory of shrubs, forbs and grasses.

b. or is a lightly covered streambank (20 to 50 percent cover) with riparian vegetation and the remainder of the vegetation is composed of woody type vegetation and grasses.

c. or is a medium to densely covered streambank (50 to 80 percent cover) with a woody type mixture of shrubs, forbs and grasses, (Chapter 3, "Riparian Vegetation") and the remainder of the vegetation is riparian vegetation and trees.

d. or is a densely covered streambank (60 to 90 percent cover) with tall grasses or mid grasses as dominant vegetation.

e. with less than 25 percent of bank barren of vegetative cover. (Includes bare soil, rocks, etc.)

Class 3 (2 points) Rather than "Grass"

a. if the streambank has less than 10 percent tree canopy cover and has a lightly to mediumly covered streambank (10 to 25 percent cover) with riparian vegetation.

b. or is a lightly to mediumly covered streambank (20 to 50 percent cover) with a mixture of shrubs, forbs and grasses (Chapter 3, "Riparian Vegetation") and the remainder of the vegetation is riparian vegetation and trees.

c. or is a mediumly covered streambank (45 to 60 percent cover) with tall grasses or mid grasses as dominant vegetation.

d. with less than 50 percent of streambank barren of vegetative cover.

Class 4 (1 point) Rather than "Exposed"

a. if the streambank has less than 1 percent canopy cover of decadent trees and is lightly covered (less than 20 percent cover) with a mixture of mesic shrubs, forbs and grasses, or riparian vegetation.

b. or is a lightly covered streambank (less than 45 percent cover) with short grasses (e.g. blue grama) and mid grasses (e.g. western wheatgrass) as dominant vegetation.

c. with more than 50 percent of streambank barren of vegetative cover regardless of kind of shrubs, forbs and grasses.

NOTE: PAGE A-159a HAS BEEN ADDED TO THIS APPENDIX TO CLARIFY THE MEANING OF THE CONDITION RATING.

Exhibit 3. -- Stream Channel Stability Field Evaluation Form.

Stream _____ Watershed _____ Location TNSP _____ RG _____ Sect. _____

Date ' Time ' Air Temp ___ °C Water Temp ___ °C Flow ___ C.F.S. Avg. Depth ___

District/P.U./R.A. _____ Observer(s) _____

Item Rated	Stability Indicators by Classes							
UPPER BANKS	EXCELLENT		GOOD		FAIR		POOR	
Landform Slope	Bank slope gradient <30%	2	Bank slope gradient 30-40%	4	Bank slope gradient 40-60%	6	Bank slope gradient 60%+	8
Mass Wasting Existing or Potential	No evidence of past or potential for future mass wasting into channels.	3	Infrequent and/or very small. Mostly healed over. Low future potential.	6	Moderate frequency & size, with some raw spots eroded by water during high flows.	9	Frequent or large, causing sediment nearly yearlong or imminent danger of same.	12
Debris Jam Potential Floatable Objects	Essentially absent from immediate channel area.	2	Present but mostly small twigs and limbs.	4	Present, volume and size are both increasing.	6	Moderate to heavy amounts, predominantly larger sizes.	8
Bank Protection from Vegetation	90% + plant density. Vigor and variety suggests a deep, dense root mass.	3	70-90% density. Fewer plant species or lower vigor suggests a less dense or deep root mass.	6	50-70% density. Lower vigor and still fewer species form a somewhat shallow and discontinuous root mass.	9	<50% density plus fewer species & less vigor indicate poor, discontinuous, and shallow root mass.	12
LOWER BANKS								
Channel Capacity	Ample for present plus some increases. Peak flows contained. W/D ratio<7.	1	Adequate. Overbank flows rare. Width to Depth (W/D) ratio 8-15.	2	Barely contains present peaks. Occasional overbank floods. W/D ratio 15-25.	3	Inadequate. Overbank flows common. W/D ratio 25.	4
Bank Rock Content	65%+ with large, angular boulders 12"+ numerous	2	40-65%, mostly small boulders to cobble 6-12".	4	20-40%, with most in the 3-6" diameter class.	6	<20% rock fragments of gravel sizes, 1-3" or less.	8
Obstructions Flow Deflectors Sediment Traps	Rocks, old logs firmly embedded. Flow pattern of pool & riffles stable without cutting or deposition.	2	Some present, causing erosive cross currents and minor pool filling. Obtions and deflectors newer and less firm.	4	Moderately frequent, moderately unstable obstructions & deflectors move with high water causing bank cutting and filling of pools.	6	Frequent obstructions and deflectors cause bank erosion yearlong. Sed. traps full, channel migration occuring.	8
Cutting	Little or none evident. Infrequent raw banks less than 6" high generally.	4	Some, intermittently at outcurves & constrictions. Raw banks may be up to 12".	8	Significant. Cuts 12-24" high. Root mat overhangs and sloughing evident.	12	Almost continuous cuts, some over 24" high. Failure of overhangs frequent.	16
Deposition	Little or no enlargement of channel or point bars.	4	Some new increases in bar formation, mostly from coarse gravels.	8	Moderate deposition of new gravel & coarse sand on old and some new bars.	12	Extensive deposits of predominately fine particles. Accelerated bar development.	16
BOTTOM								
Rock Angularity	Sharp edges and corners, plane surfaces roughened.	1	Rounded corners & edges, surfaces smooth & flat	2	Corners & edges well rounded in two dimensions.	3	Well rounded in all dimensions, surfaces smooth.	4
Brightness	Surfaces dull, darkened, or stained. Gen. not "bright".	1	Mostly dull but may have up to 35% bright surfaces.	2	Mixture, 50-50% dull and bright, ± 15%; i.e., 35-65%	3	Predominately bright, 65%+ exposed or scoured surfaces.	4
Consolidation or Particle Packing	Assorted sizes tightly packed and/or overlapping.	2	Moderately packed with little overlapping.	4	Mostly a loose assortment with no apparent overlap.	6	No packing evident. Loose assortment, easily moved.	8
Bottom Size Distribution Percent Stable Material	No change in sizes evident. Stable materials 80-100%	4	Distribution shift slight. Stable materials 50-80%.	8	Moderate change in sizes. Stable materials 20-50%.	12	Marked distribution change. Stable materials 0-20%.	16
Scouring and Deposition	Less than 5% of the bottom affected by scouring and deposition.	6	5-30% affected. Scour at constrictions and where grades steepen. Some deposition in pools.	12	30-50% affected. Deposits & scour at obstructions, constrictions, and bends. Some filling of pools.	18	More than 50% of the bottom in a state of flux or change nearly yearlong.	24
Clinging Aquatic Vegetation Moss & Algae	Abundant. Growth largely moss like, dark green, perennial. in swift water too.	1	Common. Algal forms in low velocity & pool areas. Moss here too and swifter waters.	2	Present but spotty, mostly in backwater areas. Seasonal blooms make rocks slick.	3	Perennial types scarce or absent. Yellow-green, short term bloom may be present.	4
	COLUMN TOTALS							

Record the values in each column for a total reach score. (E.___+ G.___+ F.___+ P.___ = ___)

Reach score of: 38 = Excellent, 39-76 = Good, 77-114 = Fair, 115+ = Poor.

Circle only one of the numbers in parenthesis for each indicator rated. If condition falls between the conditions described, cross out the given number and write in the intermediate value. The above Form is to be completed each time Form 6671-2 is completed (see Part II, Recording Field Data). The above Form was developed by Hydrologists in the Northern Region of the United States Forest Service.

MT-63 A

Appendix 4.22

MEMORANDUM OF UNDERSTANDING
between
THE MONTANA FISH AND GAME COMMISSION
and
THE BUREAU OF LAND MANAGEMENT

SUPPLEMENT NO. 1

Mechanical and Chemical Alteration of Vegetation

This Memorandum of Understanding supplements and is pursuant to the Master Memorandum of Understanding between the Montana Fish and Game Commission and the Bureau of Land Management, dated June 4 , 1971.

WHEREAS, the Bureau of Land Management, hereinafter referred to as the Bureau, under the laws of Congress and regulations of the Department of the Interior, is responsible for management, conservation, and development of the public lands, on which development for one or more uses may require the application of land treatment measures which may affect or alter fish and wildlife habitat, and

WHEREAS, under the laws of the State of Montana, the Montana Fish and Game Commission, hereinafter referred to as the Commission, is responsible for the preservation and management of the fish and wildlife found within the State of Montana upon which land treatment practices may have an effect, and

WHEREAS, the Bureau and the Commission mutually desire to eliminate detrimental effects that land treatment may have on fish and wildlife, and to improve habitat by such treatment if possible,

NOW, THEREFORE,

IT IS MUTUALLY AGREED AND UNDERSTOOD:

1. That this agreement applies to all land treatment practices which alter the vegetation by chemical or mechanical means; this includes, but is not restricted to, the following treatments: spraying, plowing, contour furrowing, chisel plowing, and interseeding. This does not include timber harvest or timber stand improvement.

2. That all pesticides, herbicides, and related chemicals be applied in a manner fully consistent with the protection of the entire environment. Any contemplated use of these chemicals must take into account both known and possible environmental effects. That the guiding rule of the Bureau shall be that, when there is any reasonable doubt regarding the environmental effects of the use of a given pesticide, herbicide, or other chemical, no use should be made.

3. It is recognized that coordination must begin early in the planning stages (URA-MFP) of any treatment proposal to provide sufficient time for adequate study, meaningful evaluation, and effective recommendations. It is understood that long-range proposals are highly tentative and should be considered in that context. This coordination will be initiated by the Bureau advising the Commission of any plan or proposal for the land treatment practices stated above. The procedure is as follows:

a. The Bureau District Manager will advise the appropriate Department of Fish and Game Supervisor of long-range plans that consider alteration of vegetation. Because of the tentative nature of such considerations, he will also notify the District Supervisor of any changes in plans, prior to establishing priority by area.

b. The District Manager will notify the appropriate District Supervisor, in writing, of any specific project proposals as early as possible in the planning stages, and in no case later than March 15, two years prior to the proposed date of treatment.

The proposal will include:

(1) Purpose and objectives of treatment, with supporting data and justification.

(2) Provisions for wildlife and wildlife habitat protection. If project will facilitate management that will benefit wildlife, this should be explained.

(3) Method of treatment, size, and location plotted on a map. Internal "leave" areas, identified by BLM technicians in advance, will be so noted.

(4) Proposed schedule for interagency coordination, including dates of meetings, joint field inspections, and submission of written comments and recommendations. This will not preclude inspections made singly by either agency.

c. The District Supervisor will: (1) acknowledge notification and concur with, or recommend changes in, the coordination schedule proposed by the District Manager; (2) evaluate the project to determine effects on wildlife and wildlife habitat; and (3) submit recommendations and justification, with supporting data, in writing as agreed in the coordination schedule.

d. The District Manager will carefully consider the District Supervisor's comments and recommendations before any decision is reached. He will advise the District Supervisor of his proposed decision and provide for a meeting if deemed necessary by either party.

e. Disagreements should be resolved through joint discussions and project site inspections arranged and carried out at the District level.

f. Unresolved disagreements concerning specific projects will be referred to the Director of the Department of Fish and Game by the District Supervisor, and to the Bureau State Director by the District Manager. The Director, or his authorized representative, and the Bureau State Director, or his authorized representative, will meet, discuss, and attempt to resolve such disagreements.

4. It is recommended that the Department and the Bureau cooperate to accomplish the studies necessary to evaluate proposed land treatment impact on wildlife and to make recommendations for protection and enhancement of habitat.

5. Neither party will publicly criticize the other agency during the evaluation and coordination period of any project without first submitting all complaints, constructive criticisms, and suggestions to the respective supervisory personnel, where a full administrative review will be utilized within each organization. If said review does not, within a reasonable time, resolve such complaints, other courses of action may be pursued.

6. This supplement to the Master Memorandum of Understanding, dated June 4, 1971, shall become effective when signed by the designated representatives of the parties hereto and shall remain effective so long as the primary agreement remains in effect, or until terminated by mutual agreement, or by either party upon thirty days' notice in writing of its intention to terminate upon a date indicated. Amendments to the supplemental agreement may be proposed by either party and shall become effective upon approval by both parties.

MONTANA FISH AND GAME COMMISSION

By Willis Blake
Chairman

Date June 1, 1971

Address Willis Blake

BUREAU OF LAND MANAGEMENT
DEPARTMENT OF THE INTERIOR

By Harold C. Lynch
ACTING State Director

Date JUL 16 1971

Address 316 North 26th Street
Billings, Montana 59101

LIST OF PREPARERS (Addendum)

Some of the hands helping with the Prairie Potholes EIS were inadvertently left out of the original "List of Preparers." They are:

William H. Bishop: Public Information Specialist
BA with distinction, in university studies from the University of New Mexico. Bill taught for the University of New Mexico, worked as a guide and outfitter, was a free lance writer and carpenter before joining BLM's Richfield District in 1977, where he was a Writer-Editor on seven EISs. Bill prepared the "Federal Register Notices," prepared the brochures for the Prairie Potholes EIS, scheduled and coordinated public meetings and hearings, and kept the Writer-Editor from going crazy.

Wally Elliot: Supervisory Range Conservationist
BS Range Management and Animal Husbandry, Utah State University. Wally has worked for BLM in Idaho and Montana since 1960 and is currently in the Havre Resource Area. He also runs a stock and grain farm near Chinook. Wally acted as an animal husbandry consultant for the Prairie Potholes EIS.

Hal Vosen: Range Conservationist
BS Forestry, University of Idaho. Hal has been with BLM since 1963, serving in the Denver Service Center, Farmington, New Mexico, and Malta and Havre, Montana, before landing in the Miles City District Office. Hal provided background information for the range objectives in the Prairie Potholes EIS and data on ranching operations for the "Social and Economic" section.

Jerry Pierce: Range Conservationist
BS, Range Management, University of Wyoming. Jerry has been with BLM on the Hi-Line since 1973. He helped with the allotment summaries, helped with the mapping and range condition used on those summaries, and helped with the range objectives and with the SVIM study.

Craig Nemeth: Range Conservationist
BS, Forestry, University of Montana. Craig has worked in BLM's Valley Resource Area for the past five years where he assisted with the Missouri Breaks EIS. He helped compile the allotment summaries for the Prairie Potholes EIS and assisted with the range objectives and SVIM in the Valley RA.

Jeff Dose: Fishery Biologist
BS, MS, Fisheries Biology, Oregon State University. Jeff began working for BLM's Phillips Resource Area in 1979 after a stint with the Oregon Fish and Wildlife Department. He has since moved on to BLM's Medford District Office in Oregon. Jeff assisted with the wildlife impact study in the Prairie Potholes EIS and with the wildlife objectives. He also inventoried fishing reservoirs and conducted stream surveys for the EIS.

Chris Hoff: Wildlife Management Biologist
BS, MS, Wildlife Management, Humboldt State University. Chris has worked for BLM for 3½ years in the Lewistown District Office and the Havre Resource Area. For the Prairie Potholes EIS, Chris helped develop the wildlife objectives and assisted with the big game estimates in conjunction with the Montana Department of Fish, Wildlife and Parks.

Mike Fisher: Wildlife Management Biologist
BS, Applied Field Biology, California Polytechnic State University. Mike has worked on the Hi-Line for 4 years with BLM. He helped with the wildlife objectives and the big game estimates for the EIS as well as reviewing drafts of the wildlife section.

Fritz Prellwitz: Wildlife Management Biologist
BS, MS, Wildlife Management, University of Wisconsin. He has been in BLM's Phillips Resource Area for the past 2½ years. For the Prairie Potholes EIS, Fritz assisted with the wildlife objectives, the big game estimates, and helped establish the number and location of the potholes in the Phillips RA. He also helped in the review of the comments from other agencies on the wildlife section of the EIS.

REFERENCES (Addendum)

Some references were cited in the text of the Prairie Potholes Draft EIS without being listed in full in the "References" Section. These are given here (with page, column and paragraph from the draft EIS) along with references cited for the first time in the final EIS. References mentioned in the "Responses to Comments" Section are listed in the response.

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